Scientific and Engineering Leaders of the Naval Surface Warfare Center

Dahlgren, Virginia 22448-5000 Silver Spring, Maryland 20903-5000

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PRINCIPAL AND DISTINGUISHED SCIENTISTS AND ENGINEERS

FOREWORD

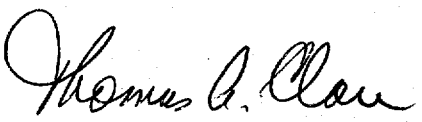
This directory will introduce you to the top scientific and engineering leaders of the Naval Surface Warfare Center. It is divided into three sections, each representing a primary area of leadership. The sections contain photographs and brief resumes of these leaders. An index is provided to facilitate the location of individual scientists and engineers.

The first section includes the Principal and Distinguished Scientists and Engineers who provide technical leadership in science and engineering.

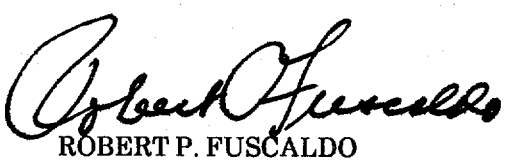
The second section includes the Senior Program Managers who direct our most important research and development programs.

The final section includes those Department and Division Line Managers who head the organizational units and lead the scientists and engineers, military and support personnel, technicians, and skilled laborers who make up the Center's total complement of 5,000 employees.

The professions of these scientific and engineering leaders are varied and represent many disciplines. Their experience and dedicated efforts in their specific leadership areas make the Naval Surface Warfare Center one of the Navy's prime research and development centers.



THOMAS A. CLARE
Technical Director



ROBERT P. FUSCALDO
Captain, U.S. Navy
Commander

CAPTAIN ROBERT P. FUSCALDO, USN
COMMANDER
NAVAL SURFACE WARFARE CENTER

Captain Robert P. Fuscaldo assumed command of the Naval Surface Warfare Center (NAVSWC) on 30 June 1988 following a tour as Deputy Program Manager for the AEGIS Shipbuilding Program, Naval Sea Systems Command (NAVSEA). A native of Tuckahoe, New York, he entered the U.S. Navy through the NROTC program at the University of Notre Dame where he earned a Bachelor of Science degree in Chemical Engineering in 1961. He is also a graduate of the U.S. Naval Postgraduate School (Ordnance Engineering) and the Industrial College of the Armed Services.

Captain Fuscaldo's first Navy experiences included tours aboard amphibious ships and destroyers. An early highlight was his participation in wargaming and antisubmarine warfare operations with Task Group Alpha, one of the Navy's premier hunter-killer groups. He also served in the Bureau of Personnel Training Directorate. In 1967, Captain Fuscaldo commanded a river patrol boat squadron in Vietnam, operating primarily on the rivers and canals of II and IV corps. He later served for 27 months as Damage Control Officer aboard USS KITTY HAWK (CV-63), deployed during much of that time to Yankee Station off the coast of Vietnam.

In 1972, Captain Fuscaldo reported to the Naval Weapons Support Center, Crane, Indiana, as Director of Ordnance, responsible for weapons production. He then returned to sea, commanding USS KISKA (AE-35), at that time the Navy's newest ammunition ship. Following his first tour of duty at NAVSWC, Dahlgren, Virginia, as Assistant for Military Applications in the Weapons Systems Department, he served as Assistant Chief of Staff for Operations to Commander, Surface Group Western Pacific, CTF-73 and CTF-75. There he was responsible for the operations of some 77 ships and coordinated activities concerned with fleet exercises, battle readiness, logistics, and training. These operations extended from the Persian Gulf to the International Dateline and from the Sea of Okhotsk to Australia. In 1983, as Executive Assistant to Commander, NAVSEA, he took part in getting the new DDG-51 ARLEIGH BURKE class approved.

Captain Fuscaldo's decorations include the Bronze Star with Combat V; the Meritorious Service Medal with two gold stars; the navy Commendation Medal with gold star; Combat Action Ribbon, Presidential Unit Citation; three Navy Unit Citations; and various service and campaign ribbons.

DR. THOMAS A. CLARE
TECHNICAL DIRECTOR
NAVAL SURFACE WARFARE CENTER

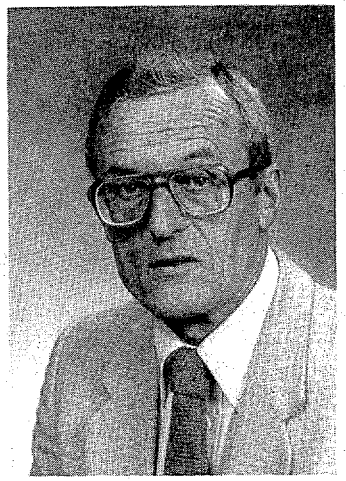
Dr. Thomas A. Clare was named Technical Director of the Naval Surface Warfare Center on 27 February 1989. Previously, Dr. Clare headed the Center's Engineering and Information Systems Department and chaired the Center's Finance and Business Systems Resource Board.

A native of New York, Dr. Clare began his career as an aeroballistics engineer at the Naval Weapons Laboratory, Dahlgren, Virginia, in 1967. He holds bachelor's and master's degrees in aerospace engineering from the University of Notre Dame and completed his doctorate there in 1970.

Dr. Clare was selected to head the Center's Aeromechanics Branch in 1973. Two years later he was named head of the Exterior Ballistics Division. From 1975 to 1976, Dr. Clare served as Science Advisor to Commander, Naval Surface Force Atlantic in Norfolk, Virginia.

Upon returning to the the Center, Dr. Clare headed the AEGIS Ship Combat Systems Division until he was named deputy head of the Center's Electronics Systems Department in 1979. Subsequently, he headed the Combat Systems and Strategic Systems Departments before moving to the Engineering and Information Systems Department.

Dr. Clare has received numerous awards and commendations during his career. He received the Department of the Navy Superior Civilian Service Award in 1986 and the Presidential Rank of Meritorious Executive in 1990. He has published more than 30 papers in referred journals or at national symposia.

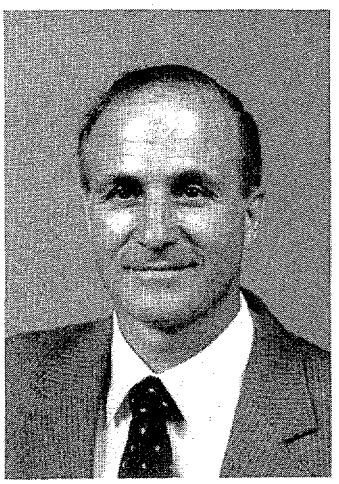


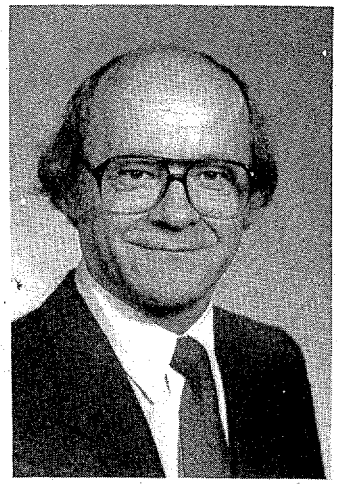
HORST G. ADOLPH
PRINCIPAL CHEMIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R10D)

Ph.D. in Organic Chemistry, University of Tuebingen, Germany, 1959. At NAVSWC since 1961. Research chemist in the field of explosives working with synthesis and properties of explosive ingredients, 1961-1975; Head, Explosives Chemistry Branch, 1975-1979; Program Coordinator, Explosives Research, and Group Leader, Explosives Synthesis, 1979-1987. Received ADPA William Crozier Silver Medal, 1985. Currently involved in synthesis, development, and study of structure-property relationships of new high-energy compounds.

NORMAND AUGER
PRINCIPAL MATHEMATICIAN
WEAPONS SYSTEMS DEPARTMENT (G702)

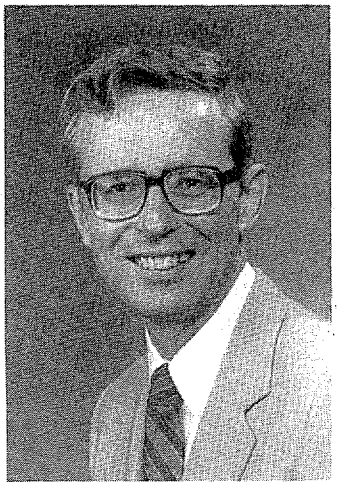
B.S., 1966, M.A., 1970, and Ph.D., 1977, in Mathematics, University of Vermont. At NASA, 1967-1972. At NAVSWC since 1972. Performed research and development of Gun Fire Control System, 1972-1982; headed the development of AEGIS DDG-51 Gun Weapon System, 1981-1986; senior systems engineer for the NATO AAW System, 1986-1989. Received Navy Meritorious Civilian Service Award, 1986. Currently, Technical Director for the NATO AAW Weapons System Program.





JOSEPH M. AUGL
PRINCIPAL POLYMER AND COMPOSITE SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R31)

Ph.D. in Chemistry, 1959; Assistant Professor of Chemistry, University of Vienna, 1959-61. Project leader at Standard Oil Corporation of Ohio, 1961-63. Group leader at Melpar, Inc., 1963-68. At NAVSWC since 1968. Research chemist, Polymer Group, 1968-present; group leader, polymer chemistry, since 1971. Research includes synthesis of high-temperature polymers; aging of polymeric materials and composites; prediction of material behavior of resins and composites; moisture diffusion in resins and composites; formulation of new composite repair adhesives and impregnation resins; prediction of nonlinear viscoelastic behavior of matrix and composite materials; efforts on creep rupture of composites under compression; and characterization of rocket nozzle adhesives and cements. Consultant to SSPO, NAVAIR, DTRC, DARPA, and NAVSEA. Received Navy Meritorious Civilian Service Awards in 1971, 1972, 1986; NAVSWC Human Awareness Award, 1987; Best Navy Paper, Navy-Air Force Science Symposium, 1978. Authored over 100 publications. Member ACS, Polymer Society, and SAMPE.

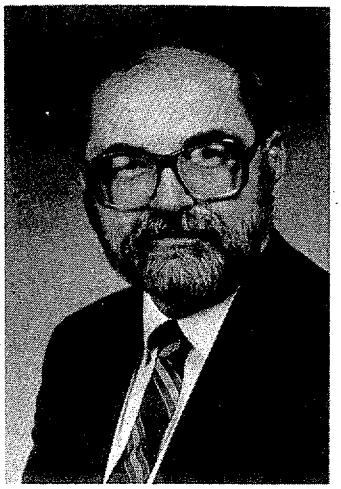


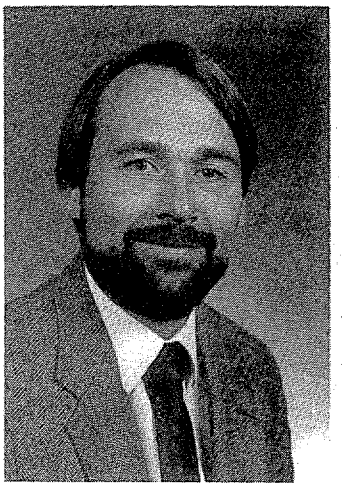
THOMAS B. BALLARD
PRINCIPAL ELECTRONICS ENGINEER
UNDERWATER SYSTEMS DEPARTMENT (U202)

B.E. in Electrical Engineering, Rensselaer Polytechnic Institute, 1959; M.S. in Electrical Engineering, California Institute of Technology, 1960; Ph.D. in Electrical Engineering, University of Maryland, 1969. Design engineer at NASA, 1962-1972. At NAVSWC since 1974. Involved in R&D of submarine detection and tracking techniques, Signal Processing Branch, 1974-1987; group leader, 1976-1987; chief engineer, Sensor and Electronics Division, 1987. Served as a visiting professor, U.S. Naval Academy, 1985. Received Underwater Systems Department Cioccio-Reed Award for Technical Excellence, 1983. Currently working on tracking techniques for surface ship and mine applications.

RICHARD R. BERNECKER
PRINCIPAL RESEARCH CHEMIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R13)

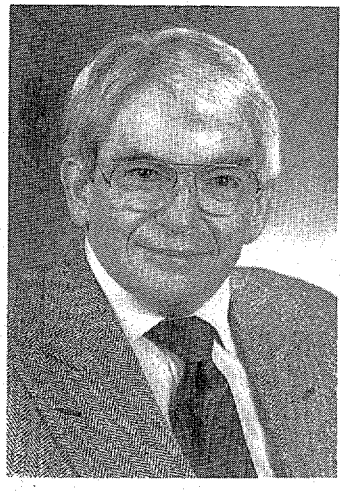
B.S. in Chemistry, Muhlenberg College, 1957; Ph.D. in Physical Chemistry, Cornell University, 1962. Research chemist at Standard Oil (Indiana), super-high pressure solution kinetics, 1961-1964. Research chemist at Los Alamos Scientific Laboratory, decomposition and combustion of explosives, 1964-1969. At NAVSWC since 1969, working on sensitivity and detonation of explosives and propellants. Consultant for Strategic Systems Program Office on safety of rocket motor propellants; technical coordinator, SSPO Hazard Assessments of Rocket Propellants (HARP) Program, 1983-1990. Member Combustion Institute, American Physical Society, and American Chemical Society. Currently working in areas concerned with shock initiation and propellants.





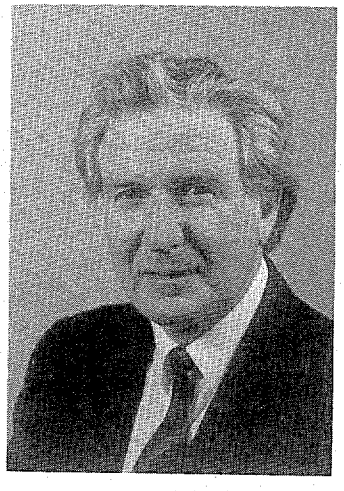
JANIS BILMANIS
PRINCIPAL ELECTRONICS ENGINEER
UNDERWATER SYSTEMS DEPARTMENT (U042)

B.S. in Electronics Engineering, Ohio Institute of Technology, 1974. At NAVSWC since 1974. Performed design and development of torpedo guidance systems, 1974-1979; performed research in advanced ASW technology concepts, including acoustic and nonacoustic techniques against torpedoes and submarines using various advanced array configurations, 1980-1984; participated in the development of alternate ASW system concepts for various ASW combatants, 1985-1986; performed research in the development of advanced system engineering techniques required in next-generation, combat system architectures, 1987-1989. Currently performing R&D of advanced combat system concepts integrated with alternate C^3 architectures using advancing system engineering techniques.



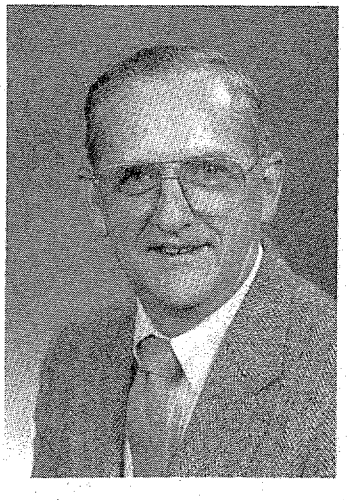
ROBERT CAWLEY
PRINCIPAL RESEARCH SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R44)

B.S. in Physics, Massachusetts Institute of Technology, 1958; M.S. in Physics (minor in Astronomy), University of Illinois, 1960; Ph.D. in Physics, 1965; Assistant Professor of Physics, Clarkson University, 1965-1967. At NAVSWC since 1967. Performed research in theoretical physics in the Radiation Science and Technology Branch, 1967-1984; established Nonlinear Dynamics Group and NAVSWC-NRL-ONR Navy dynamics institute program in 1984; performed research in physics and mathematics, 1984-1990; moved to the Mathematics and Information Sciences Branch, 1990. Member APS, AMS, SIAM, and AGU. Currently, Nonlinear Dynamics Group Leader.



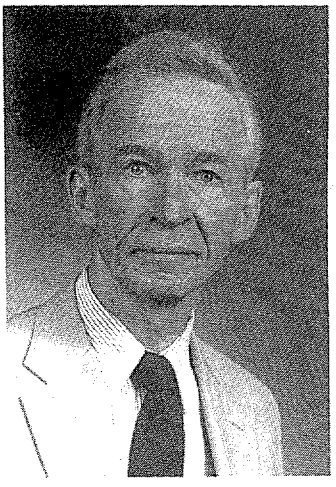
WILLIAM R. CHADWICK
PRINCIPAL AERONAUTICAL ENGINEER
WEAPONS SYSTEMS DEPARTMENT (G23)

B.S. in Aeronautical Engineering, University of Salford, 1958; M.S. in Aeronautical Science, Cranfield Institute of Technology, 1960; Ph.D. in Aeronautical Science, U.S. Naval Postgraduate School, 1972. Senior scientific officer at the Weapons Research Establishment, Australia, and at the Royal Aircraft Establishment, England. At NAVSWC since 1965. Main areas of research are flight mechanics and guidance and control. Over 40 technical papers published. Received John Adolphus Dahlgren Award, 1989.



ARTHUR E. CLARK
DISTINGUISHED RESEARCH SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R43)

B.S. in Physics and Electronics, University of Scranton, 1954; M.S. in Physics, University of Delaware, 1956; Ph.D. in Physics, Catholic University of America, 1957. Electronics research at NADC and Daystrom Institute, 1956-1960. At NAVSWC since 1960. Performed research on the elastic properties of crystals and glasses, 1960-1965; metals and insulator magnetics, 1966-1970; rare earths, rare earth alloys, and magnetostriction and magnetoelastic effects, 1971-1980; magnetomechanical transduction, amorphous magnetic materials, and ultrasensitive detectors, 1980-present; leader, Magnetism and Magnetic Materials Group, Sensor Technology Branch, 1974-present. Received two Meritorious Civilian Service Awards; Award of Merit for Group Achievement; and the first NAVSWC Science and Technology Excellence Award. Prepared numerous review papers and handbook and encyclopedia articles. Eleven patents granted. Member APS, Acoustical Society, and AAAS. Currently performing research on high-power, magnetomechanical transduction, and ultrasensitive detector materials.

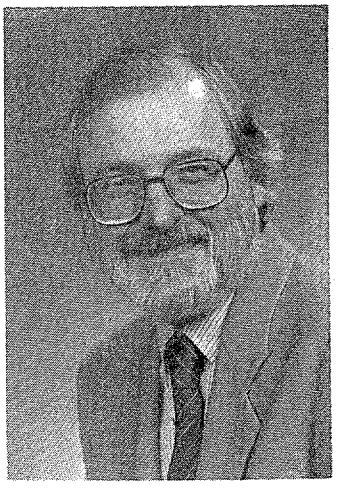


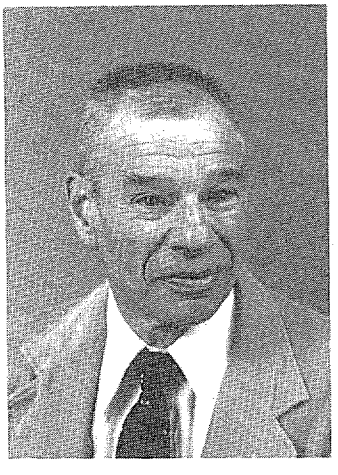
JAMES R. CULLEN
PRINCIPAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R43)

B.S. in Physics, St. John's University, 1958; Ph.D. in Physics, University of Maryland, 1964. At NAVSWC since 1966. Carried out research in magnetic semiconductors at NAVSWC and at the University of Wisconsin, 1966-1969; performed research in metallic magnetism, 1970-1975, and at Imperial College, London, 1972-1973. Served as scientific officer, National Science Foundation, 1976; research in magnetoelasticity and ultrasonics, 1977-1980; research in magnetic anisotropy and magnetostriction, 1980-present; magnetic thin films and multilayers, 1987-present. Research interests include the theory of magnetism in metals and in superconductors.

CHARLES DICKINSON
PRINCIPAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R10)

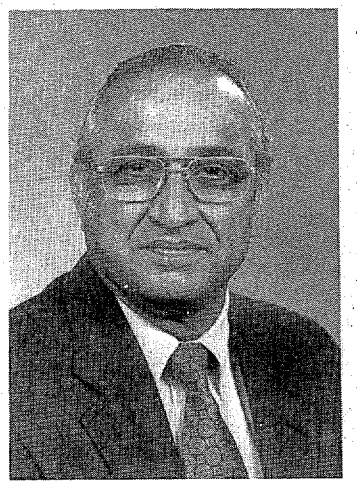
B.S. in Chemistry, University of Minnesota, 1959; M.S., 1964, and Ph.D., 1972, in Chemistry, University of Maryland. At NAVSWC since 1960, beginning as a summer student; joined permanent staff, 1961. Performed research in the field of explosives research using x-ray diffraction techniques to investigate relationship between material and explosive properties, 1960-1982; served two temporary assignments as explosives program manager at NAVSEA, 1979 and 1982; Head, Detonation Physics Branch, 1982-1987; Director, Independent Research Office, 1987-1990. United States Focus Officer for explosives and cochairman of action group WAG-II in TTCP. Member American Crystallographic Association and the Royal Chemical Society. Current research interests relate to improving explosives hazards and performance.





ARMIDO R. DIDONATO
PRINCIPAL RESEARCH MATHEMATICIAN
STRATEGIC SYSTEMS DEPARTMENT (K104)

B.S. in Mathematics, Duquesne University, 1950; S.M. in Mathematics, Massachusetts Institute of Technology, 1951; Ph.D in Mathematics, Carnegie-Mellon University, 1972. At NAVSWC since 1954. Performed research in differential equations, reentry fluid dynamics, interior ballistics, dynamic thermoelasticity, probability theory. Currently, consultant in the area of mathematics, performing research in numerical analysis and mathematical statistics.

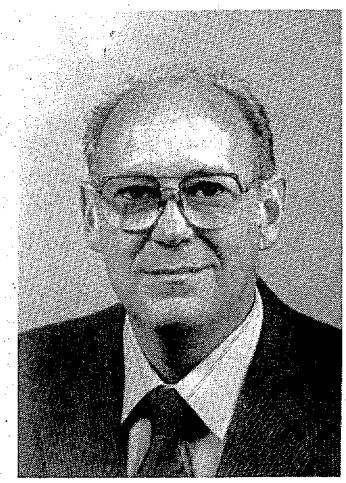


AMARNATH P. DIVECHA
PRINCIPAL METALLURGIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R32)

B.S. in Chemistry, University of Bombay, 1958; M.S. in Metallurgy, University of Utah, 1962. At NAVSWC since 1976. Developed processes for consolidation of whisker, particulate and continuous filament, and reinforced metal matrix composites resulting in seven patents. The basic patent was procured by Exxon and is the foundation of an important industry today; Trident II missile guidance system is based on this work. Developed a process for centrifugal casting of discontinuous metal matrix composites for fabrication of advanced lightweight torpedo (patent pending). Developed techniques for processing high- and low-temperature superconductors. Received John Adolphus Dahlgren Award, 1982; the Delmonte Award (breakthrough in processing of silicon carbide reinforced aluminum composites), SAMPE International Society, 1985; and NAVSWC's IED Award (superconductor wire processing). Three additional patents have been awarded; five more are pending. Currently performing research in the areas of superconductivity, metal matrix composites, and aluminum lithium alloys.

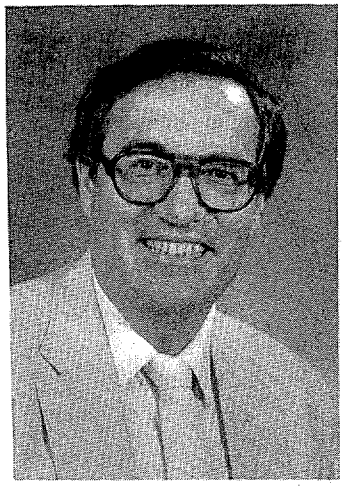
JESSE L. EAST, JR.
PRINCIPAL MECHANICAL ENGINEER
WEAPONS SYSTEMS DEPARTMENT (G205)

B.S., 1966, M.S., 1968, and Ph.D., 1970, in Mechanical Engineering, Virginia Polytechnic Institute and State University; advanced degrees in fluid dynamics heat transfer, and thermodynamics. At NAVSWC since 1970. Performed gun propulsion research, 1970-1976. Participated in NAVSWC IR and IED programs; performed as NAVSWC principal for surface-launched weapons with the NAVSEA Exploratory Development and Technology Office, 1977-1983 NAVSWC representative at SPAWAR AAWG project, 1984-1986. Led numerous national and international technology exchanges and workshops Awarded patents for ignition and combustion concepts. Received Navy Meritorious Civilian Service Award, 1988. Currently, chief engineer and Deputy Program Manager for Missile Systems Program Office, with interests focused on advanced systems and technology transition.



PATRICK J. FELL
PRINCIPAL PHYSICAL SCIENTIST
STRATEGIC SYSTEMS DEPARTMENT (K10)

B.S., 1969, and M.A., 1971, in Mathematics, Pennsylvania State University; M.S., 1977, and Ph.D., 1980, in Geodesy, Ohio State University. At NAVSWC, 1971-1981. Performed research in the fields of orbit determination, physical and satellite geodesy. Served on the staff, Defense Mapping Agency, 1981-1990; Head, Advanced Technology Division, responsible for the R&D program at DMA Hydrographic Topographic Center, 1985-1987; Deputy Program Manager, Sensors Office, Strategic Defense Initiative Office (SDIO), 1987-1989; Chief, Geodetic Development Division, DMA System Center, 1989-1990. Adjunct Professor of Civil Engineering, Virginia Polytechnic Institute and State University, 1980-1990. Member American Geophysical Union. Returned to NAVSWC in 1990. Currently performing research in satellite and physical geodesy, Space and Surface Systems Division.

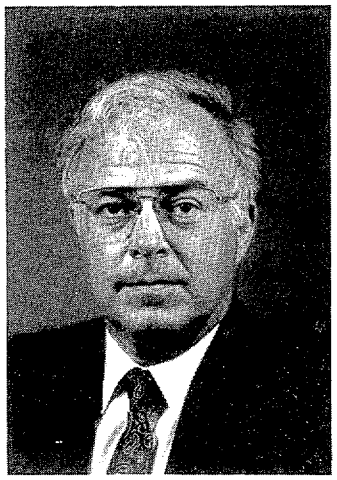


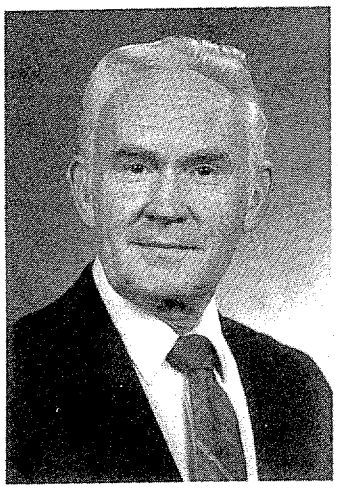
JERRY W. FORBES
PRINCIPAL SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R13)

B.S. in Physics and Mathematics, Western Illinois University, 1963; M.S. in Physics, University of Maryland, 1967; Ph.D. in Physics, Washington State University, 1976; dissertation, "An Experimental Investigation of the Kinetics of the Shock-Induced Alpha to Epsilon Phase Transformation in Armco Iron." At NAVSWC since 1963. Performed research in the field of solid state physics, 1963-1965; performed research on shock wave, detonation, and particle beam sciences, 1965-present. Published over 30 papers and technical reports. Served as material interaction chairman for Navy, 1976-1983, and DARPA material interactions for the Undersecretary of Defense's 1979 particle beam study. Secretary/treasurer of the American Physical Society's topical group on shock compression of condensed matter, 1985 (group's inception)-present. Chairman, technical committee for the 1991 APS Topical Conference on Shock Compression of Condensed Matter.

DAVID C. GARDINER
PRINCIPAL INFORMATION ENGINEER
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E04)

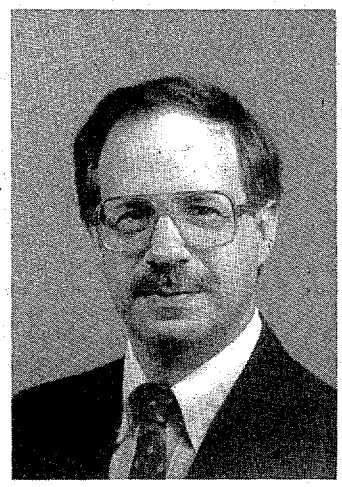
B.A. in English and Philosophy, Belmont Abbey College; B.S. in Electrical Engineering, North Carolina State University, 1963; master's degree in Engineering Administration, George Washington University, 1969. At NAVSWC since 1985 as Director of Information Resource Management and Assistant for Information Technology. Twenty-nine year, Navy civilian career includes various technical and business line management positions; namely, engineering and production management positions, Comptroller at NOS, Indian Head; Comptroller and MIS Director at David Taylor Research Center; and Director of Management at ONR. Received NAVSWC Surface Warfare Excellence Award, 1988; Navy's nominee for Tri-Service Comptroller of the Year 1980, 1982; Navy's financial management SES pre-certification candidate, 1981. Member FEI Alumni Associates, DON Information Standards Committee, and American Society for Performance Improvements. Currently introducing advanced information systems methods and tools for the Center's business application.





DONALD R. GARVICK
PRINCIPAL MECHANICAL ENGINEER
UNDERWATER SYSTEMS DEPARTMENT (U101)

B.S. in Mechanical Engineering, Bradford Durfee College of Technology, 1959; postgraduate studies, University of Maryland, 1973-1974. At NAVSWC since 1960. Performed project research and engineering development in the areas of fuzing and safing and arming systems for underwater ordnance, 1960-1975; developed and released hardware components, systems, and equipments for fleet use on SUBROC, various mines, SEAL Weapons, Deep Submergence Rescue Vehicle, and the MK 48 Torpedo, 1960-1979; Head, Mechanisms Section, Mechanisms Design Branch, 1976-1979; Head, Safing and Arming Section, Weapon Design Branch, 1979-1983; Head, Weapon Design Branch, 1983-1989. Currently serving as chief engineer for underwater safing and arming systems, Underwater Weapons Division.

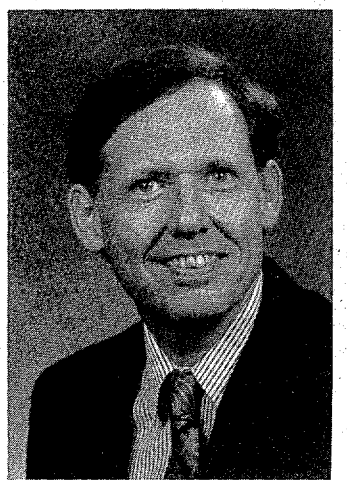


ALAN R. GLAZMAN
PRINCIPAL OPERATIONS RESEARCH ANALYST
SURFACE WARFARE ANALYSIS OFFICE (D25)

B.A. in Mathematics, Vanderbilt University, 1968; M.S. in Operations Research, George Washington University, 1972. At NAVSWC since 1968. Performed operations research studies in support of NAVSWC programs, specializing in cost analysis, 1968-1975; Head, Systems Cost Analysis Group, 1975-1984, providing cost and investment strategy studies for programs including AEGIS, VLS, DDG-51, ASW Stand-off Weapon, as well as many significant Navy studies (Outer Air Battle, DDGX, etc.). Responsible for the initiation of the Surface Warfare Analysis Office, 1984; Deputy Head, Surface Warfare Analysis Office, 1985-1987, while leading investment strategy analyses for several Navy and DOD studies; Acting Head, Surface Warfare Analysis Office, 1987-1988. Currently performing studies and research for a wide range of NAVSWC and Navy projects.

THOMAS E. GOSWICK
PRINCIPAL OPERATIONS RESEARCH ANALYST
WEAPONS SYSTEMS DEPARTMENT (G11)

B.S. in Applied Mathematics, North Carolina State University, 1963; graduate studies in mathematics and statistics, American University; M.E. in Systems Engineering, 1970, and Ph.D., 1971, in Systems Engineering/Operations Research, University of Florida. At NAVSWC since 1963. Performed research and conducted studies in weapon systems effectiveness since 1963. Received Meritorious Civilian Service Award, 1984. Member Operations Research Society of America. Currently performing research and conducting studies in terminal effectiveness of weapon system.



CARL GOTZMER, JR.
PRINCIPAL SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R11)

B.S. in Chemistry, Lafayette College, 1964; M.S. in Chemistry, University of Delaware, 1966. At NAVSWC since 1973. Performed formulation research in the field of solid rocket propellants, 1973-1979; developed CTBN-type, solid rocket propellant which has been in production for the Navy since 1979; technical management of energetic materials development programs to meet specific weapon requirements, 1980-present. Forty publications and 15 patents. Currently developing new plastic bonded explosives for insensitive munitions and underwater warheads.

DANIEL T. GREEN
PRINCIPAL COMPUTER SCIENTIST
COMBAT SYSTEMS DEPARTMENT (N305)

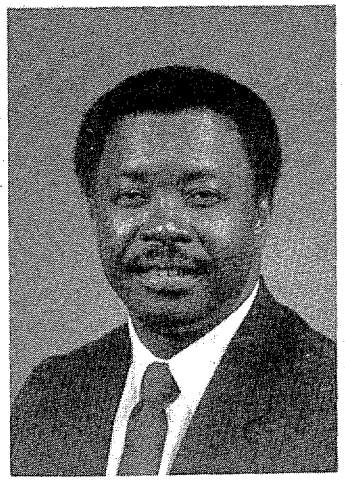
B.A. in Mathematics, Niagara University, 1954; M.S. in Mathematics, Catholic University of America, 1958; graduate study in mathematics at American University; operations research at Case Institute of Technology; and public administration at University of Oklahoma. At NAVSWC since 1958. Member of the Scientific Computer Programming Staff, 1958-1964; Head, Programming Systems Branch, 1964-1967; Head, Ships Armament Concepts Analysis Division, 1970-1972; Head, Amphibious and Mine Warfare Analysis Division, 1972-1975; Head, Concepts Integration Division, 1975-1978; staff scientist, AEGIS Combat Systems Division, 1978-1986. Member ACM. Currently, staff scientist, Engineering and Technology Division, participating in and leading projects to introduce advanced computer and communication technology into Navy combat systems.

JAMES D. HAGAN
PRINCIPAL ELECTRONICS ENGINEER
WEAPONS SYSTEMS DEPARTMENT (G33)

B.S. in Physics, Roanoke College, 1968; graduate studies in aerospace and mechanical engineering, University of Oklahoma; physics, American University; and electrical engineering, Virginia Polytechnic Institute and State University. At NAVSWC since 1971. Section Leader, Electronics Branch, performing tasks on telemeters for guided projectiles and Doppler velocimeters for projectiles fired from guns, 1971-1976; Branch Head, Guidance and Control, Missile Systems Division, 1976-1988. Licensed Professional Engineer, Commonwealth of Virginia. Consultant to ongoing Army, Navy, Air Force, and OSD programs. Currently, chief engineer for the design of new systems in response to emerging requirements within the Smart Munitions Development Branch.

MARK G. HALL
PRINCIPAL RESEARCH PHYSICIST
STRATEGIC SYSTEMS DEPARTMENT (K41)

B.S. in Physics and B.A. in Mathematics, Nebraska Wesleyan University, 1973; M.S. in Electrical Engineering, Massachusetts Institute of Technology, 1977. At NAVSWC since 1973. Performed research in stellar inertial guidance concepts and associated error estimation and accuracy evaluation methodologies, 1973-1990. Received Meritorious Civilian Service Award, 1987. Currently performing research in the areas of future SLBM weapon system concepts.

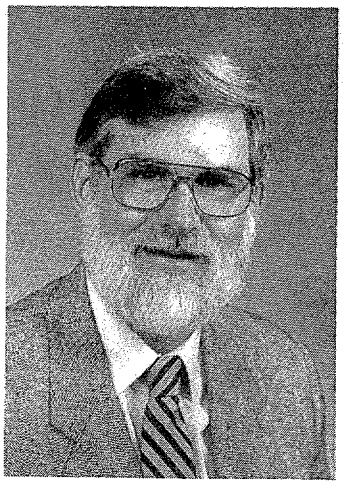


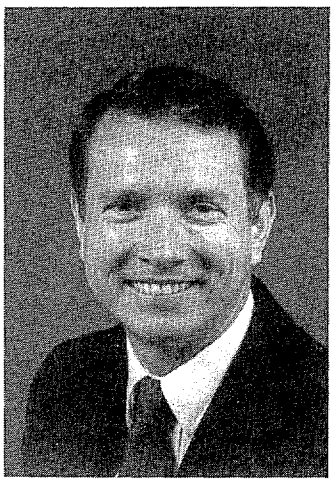
SIDNEY H. HANKERSON, JR.
PRINCIPAL COMPUTER SCIENTIST
STRATEGIC SYSTEMS DEPARTMENT (K50)

B.S. in Mathematics, Morehouse College, 1971; graduate study in computer science, Virginia Polytechnic Institute and State University, 1975. At NAVSWC since 1971. Participated in weapons control applications development for TRIDENT I, including developing process control strategies for the TRIDENT I Real-Time Operating System and leading the team that implemented the data collection/reduction software for the TRIDENT Verification and Evaluation System, 1972-1978. Significant contribution made to TRIDENT II: advanced and engineering development in operating system concepts, software development environment, higher-level language design, archival, and configuration management processes, 1979-1988. Chairman, Information Science and Command and Control IED SubPanel; K Department representative to the NAVSWC IED Panel, 1990. Member Association of Computing Machinery. Currently performing research in distributed and parallel computing; areas of investigation include operating systems programming paradigms and performance evaluation techniques.

BRUCE HARTMANN
PRINCIPAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R31)

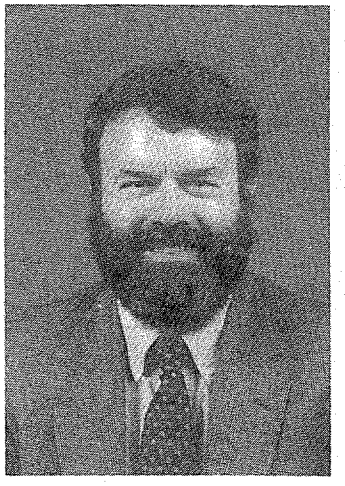
A.B. in Physics, Catholic University of America, 1960; M.S. in Physics, University of Maryland, 1966; Ph.D. in Physics, American University, 1971. At NAVSWC since 1960. Performed research in the field of high-temperature materials, 1960-68; research in acoustic properties of polymers, 1968-present; research in PVT equations of state for polymers and tensile yield in polymers, 1983-present. Received Navy Meritorious Civilian Service Award, 1986; Technology-to-Sea Excellence Award, 1989; superior performance awards, 1985-1989. Member American Physical Society; Society of Rheology; and Acoustical Society of America. Currently performing research on structure-property relations in polymers.





THURMAN C. HENDERSON
PRINCIPAL PHYSICIST AND ENGINEER
COMBAT SYSTEMS DEPARTMENT (N24)

B.S. in Physics, King College, 1965; graduate studies in physics, math, and engineering, Vanderbilt University; M.B.A., University of Maryland, 1974. At NAVSWC since 1966. Performed computer modeling, analysis, and tests in HERO, electromagnetic compatibility, and nuclear effects, 1966-1970; served as analyst and engineer in electronic warfare, wide-area surveillance, and intelligence systems, 1970-1975; developed multiple radar and passive electromagnetic detection models for aircraft, surface ships, submarines, and space-based systems, 1975-1978; directed R&D, conceptual design, and system studies in advanced radars, 1978-1981; helped establish and served as Head, Combat Systems Engineering Branch, 1981-1985. Served as U.S. representative to NATO studies in technology and future combat system concepts, 1984-1985. Chaired various Navy studies in DDG-51 AAW, Outer Air Battle systems, Command and Control commonality, and Combat System advanced concepts for future Navy combatants. Received Bernard Smith Award, 1985. Member ASNE. Currently serving as AEGIS Principal Combat System Engineer.

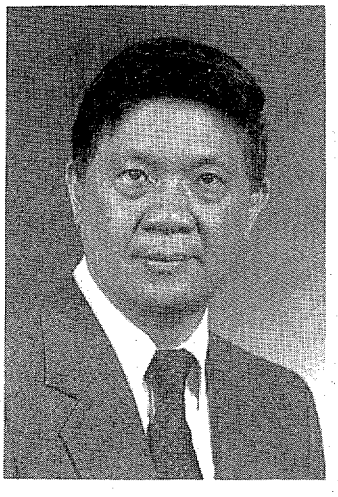


KENNETH C. HEPFER
PRINCIPAL PHYSICIST
ELECTRONICS SYSTEMS DEPARTMENT (F44)

B.S. in Physics, Florida State University, 1964; M.S., 1966, and Ph.D., 1970, in Physics, Carnegie-Mellon University. At NAVSWC since 1970. Performed experimental and theoretical work in the early guided projectile program and later assumed responsibility for determining the required characteristics for the MK 68/86 Electro-Optical Sensor System; developed performance analysis methodologies and performance and system design analysis that provided direction for all major Electro-Optical Fire Control and Surveillance System developments of the surface Navy, mid-1970s to present. Earlier work dealt with statistical assessment of environmental effects on multisensor, multifunction EO systems; more recent thrusts have concentrated on addressing sensor-weapon interactions and quantifying the benefit of IR/RF sensor integration. Currently, chief scientist systems analyst, Electro-Optical Systems Branch, investigating advanced IR sensor concepts for counter stealth applications, in addition to supporting existing programs.

JOHN J. HOLMES
PRINCIPAL ELECTRICAL ENGINEER
PROTECTION SYSTEMS DEPARTMENT (H32)

B.S., 1973, M.S., 1974, and Ph.D., 1977, in Electrical Engineering, West Virginia University. At NAVSWC since 1977. Performed research in the area of electromagnetic ship signature reduction in the ultra low/extremely low frequency band, 1977-present. Received Meritorious Civilian Service Award, 1986. Member IEEE. Currently performing research in the areas of improved field compensation and self-monitoring/feedback control of the static magnetic and electric field signatures of naval vessels.



HANSON HUANG
PRINCIPAL MECHANICAL ENGINEER
RESEARCH AND TECHNOLOGY DEPARTMENT (R14)

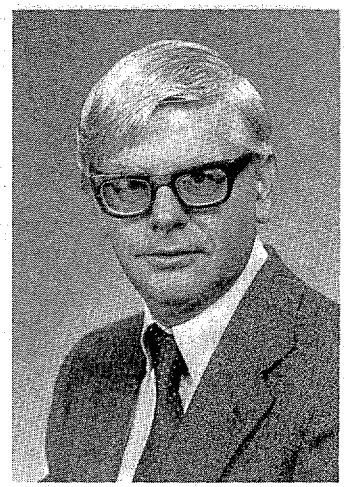
B.S. in Mechanical Engineering, National Taiwan University, 1958; M.S. in Mechanical Engineering, North Carolina State University, 1962; Ph.D. in Mechanical Engineering, Carnegie-Mellon University, 1965. At DTRC, Annapolis Laboratory, 1965-1972; performed research in establishing analytical techniques for analyzing problems related to static, shock, vibration, and acoustic radiation of submarine, hydrofoil craft, and mine countermeasure vehicle hull structures and equipments. At the Naval Research Laboratory, 1972-1983; performed research in combat survivability and vulnerability of advanced submarines in conventional and nuclear attack scenarios, submarine double-hull lethality, nonlinear media-structure interaction, and submarine target strength analysis. At NAVSWC since 1983. Task leader for undersea warhead technology R&D projects. Currently performing and directing research associated with warhead lethality against current and future submarine targets.

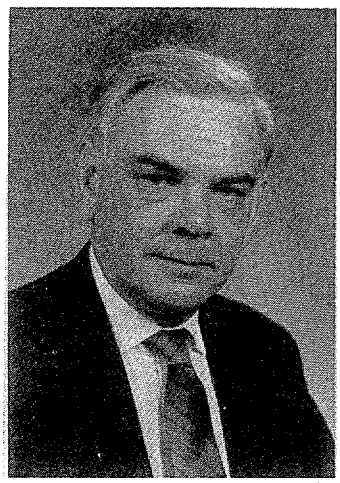
RAYMOND H. HUGHEY, JR.
DISTINGUISHED PHYSICIST
STRATEGIC SYSTEMS DEPARTMENT (K07)

B.S. in Physics, University of Alabama, 1958; graduate studies at University of Kentucky, American University, and George Washington University. Graduate of Federal Executive Institute. Began at NAVSWC in 1959 on the POLARIS program. Involved with the Navy's strategic systems (primarily SLBM), 1959-present. Head, Tactical EW Systems Division, 1979-1982; headed the SLBM weapons control efforts for almost a decade. Received John Adolphus Dahlgren Award; two Navy Meritorious Civilian Service Awards; and nomination for the William A. Jump Award for Outstanding Service in Public Administration. Currently, technical associate for Strategic Systems. Recent work concentrates on developing concepts for future (21st century) Navy strategic systems, encompassing the offensive areas of strategic deterrence and secure reserve force as well as the defensive areas of Strategic Defense Initiative (Anti-Ballistic Missile Defense), Space Control, and Theater Support.

DAVID J. LAND
PRINCIPAL THEORETICAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R41)

B.S. in Physics, Boston College, 1959; Ph.D. in Physics, Brown University, 1966. At NAVSWC since 1966. Performed research in the fields of elementary particle physics and quantum mechanical scattering theory, 1966-1973; theoretical physicist with the Atomic Collisions Group since 1973; worked on several Navy programs including Reentry Vehicle Materials (REVMAT), High-Energy Laser (HEL), and Infrared Absorption through the Atmosphere (IRST). Speaker at a number of international conferences on atomic collision physics. Referee for several professional journals. Member American Physical Society and Optical Society of America. Currently performing research in the areas of atomic collision physics and ion-beam materials modification and analysis. This research is in support of programs associated with the Center's new 3MV positive-ion accelerator.





RONALD N. LEE
PRINCIPAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R34)

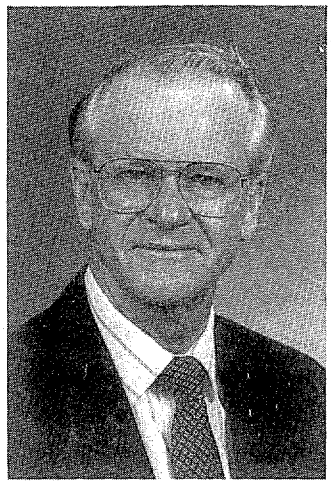
B.S. in Engineering Physics, 1958, and M.S. in Physics, 1960, University of Illinois; Ph.D. in Physics, Brown University, 1965. Battelle Fellow, Battelle Memorial Institute, Columbus, OH, 1965-1968. At NAVSWC since 1968. Research on surface properties of infrared detectors, 1968-1978; temporary assignment to Advanced Planning Staff, 1978-1979; assisted Director of Navy Laboratories in preparing Navy Laboratories Missions and Functions Instruction, 1979; established NAVSWC Surface Evaluation Facility, 1979-1980. Member, American Vacuum Society; American Physical Society; Materials Research Society; and Eastern Electron Spectroscopy Society. Chairman, Surface Science Database Committee, American Vacuum Society. Member Numerical Database Committee, American Institute of Physics. Task Leader, VAMAS Task Group on Database Architecture. Currently, group leader, Surface Science Group, with responsibilities for surface science research and for analyses of surface-related materials problems in areas including molecular computing composite materials, explosives and propellants, corrosion, adhesion, high-temperature superconductors, and battery technology.

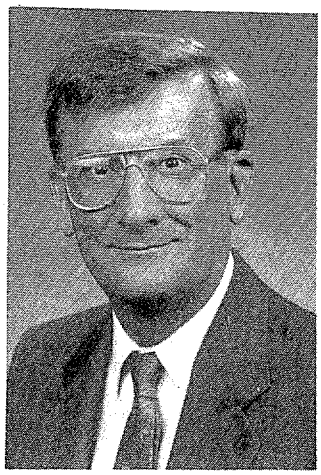
WILLIAM J. LEWIS
DISTINGUISHED ELECTRONICS ENGINEER
ELECTRONICS SYSTEMS DEPARTMENT (FOX)

B.S. in Electronics Engineering, West Virginia Institute of Technology, 1963. At NAVSWC since 1963. Development and test engineer for ballistic measurements systems, 1963-1965; senior design and system engineer for electromagnetic and intelligence measurement/collection systems, 1965-1970; Program Manager for FEWSG ship simulator system, 1970-1971; Head, Surface Systems Branch for Electronic Warfare, 1971-1973; Head, Measurements Division for Weapons Evaluation, 1973-1976; Head, Electronic Warfare Division, 1976-1978; EW technical expert to DASN/C^{3}I and ASN/RE&S, 1978-1981; senior EW technical expert to ASD/C^{3}I and USDR&E, 1981-1983; Deputy Department Head, Electronic Systems Department, 1983-1988. Senior technical expert for EW, 1988-present. Received Defense Medal for Meritorious Civilian Service Award, 1984, and Bernard Smith Award, 1987.

WILLIS C. LYONS
PRINCIPAL AEROSPACE ENGINEER
STRATEGIC SYSTEMS DEPARTMENT (K206)

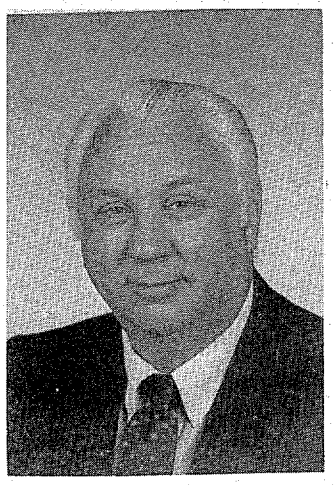
B.S. in Mechanical Engineering, University of Kentucky, 1951; M.S. in Aerospace Engineering, University of Texas, 1957; Ph.D., University of Maryland, 1969. Eight years in the U.S. Air Force and aerospace industry. At NAVSWC since 1959. Supervised the technical operation of five ballistics range facilities, including the technical planning and implementation of system development testing of U.S. ballistic missiles and the development of hypersonic, high-temperature aerodynamics and aerophysics technology. Manager for reentry aeroballistics, structures, and materials technology development programs, 1967-1976. Special assignments included acting manager of the Navy's Strike Warfare Program Element, 1977-1978; visiting professor, U.S. Naval Academy, 1986-1987; and leader of a DOD/DOE technical group for the US/UK exchange of reentry vehicle technology, 1986-present. Received Navy Meritorious Civilian Service Awards, 1961, 1964, and 1973. Holds patent for the invention of an acceleration insensitive skin friction balance. Currently serving as a specialist aerospace engineer, performing research in the areas of high-speed fluid mechanics, thermodynamics, and flight mechanics.





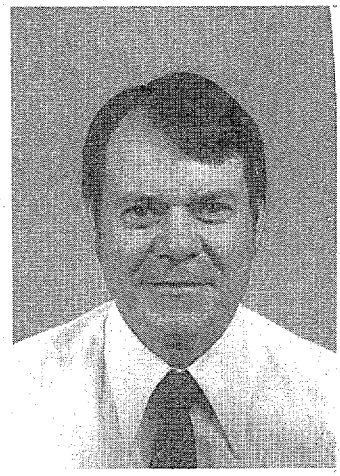
WALTER M. MADIGOSKY
DISTINGUISHED ACOUSTICIAN
RESEARCH AND TECHNOLOGY DEPARTMENT (R31)

B.S. in Physics, Fairfield University, 1955; M.S. in Physics, University of Delaware, 1957; Ph.D. in Physics, Catholic University of America, 1963. At NAVSWC since 1957. Performed research and constructed apparatus that led to the Navy's standard sound speed tables, 1957-58; performed research in molecular ultrasonics, 1959-63; Head, Physical Acoustics Research Group, 1963-1971; Head, Project Springtime, 1972-1974; ONR scientific officer, 1975-1976; chairman, MAUDE study group, 1977-1978; chairman, US/UK IEP-B62 information interchange, 1979; group leader, Acoustic Materials, 1978-1990; cochairman ASA Standards Committee S2, 1990. Elected Fellow of the Acoustical Society of America, 1980. Received Independent Exploratory Development Excellence Award, 1986. Currently heading research and development projects in acoustic stealth technology.



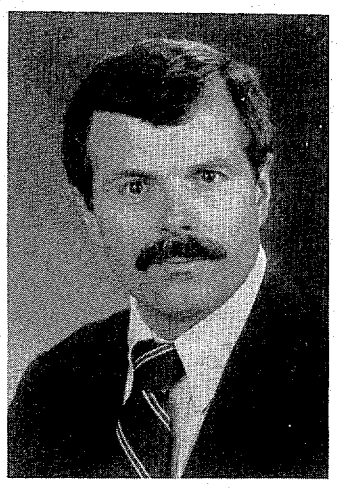
ROBERT L. McCLINTOCK
PRINCIPAL SYSTEMS ENGINEER
COMBAT SYSTEMS DEPARTMENT (N415)

B.S. in Chemical Engineering, Wayne State University, 1960. Twelve years with industry. Conducted propellant and explosive research at Allegheny Ballistics Laboratory (Hercules) and Lockheed Propulsion Company for: POLARIS A-2 second stage; high-energy oxidizers; and underwater explosives, 1960-1965. Senior engineer, Advanced Systems Division, Lockheed; carried out systems analysis and design of large solid boosters, supersonic combustion ramjets, and guided 16-inch gun launched projectiles, 1965-1969. Technical Director and Plant Manager, Fairfield Scientific and Pyrotechnic Specialties, 1969-1971. At NAVSWC since 1972. Conducted research into binary liquid explosives and conducted system analysis studies for: the HIFRAG projectile; the Project 2000 and Advanced Naval Vehicle Concepts Development Studies; the DDX and DDGX studies; and the AEGIS DDG-51 requirements definition study, 1972-1979. Head, Combat Systems Design and Engineering Division, 1980-1987. Significant contributions made to: AEGIS/DDG-51 (Technical Direction Agent); TOMAHAWK; Ada software engineering; artificial intelligence; advanced tactical computers; and fiber optics and data busing. Deputy Head, Combat Systems Department, 1987-1990. Selected for the LEGIS Fellows Program, 1988; worked 1 year as a legislative aid to Senator Harkin of Iowa. Member International Neural Network Society and International Society for Optical Engineering. Currently conducting system engineering and design studies, Advanced Cruise Missile Program (Precision Strike Initiative), sponsored by ONR.



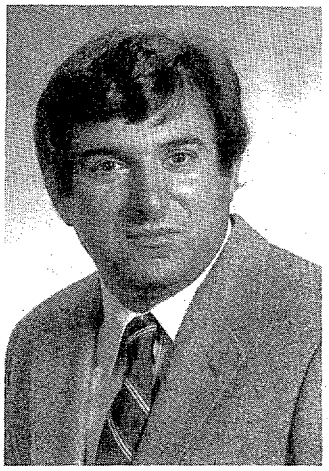
FRANKIE G. MOORE
PRINCIPAL AERODYNAMICIST
WEAPONS SYSTEMS DEPARTMENT (G07)

B.S., 1967, M.S., 1968, and Ph.D., 1971, in Aerospace Engineering, Virginia Polytechnic Institute and State University. At NAVSWC since 1963. Coop student, 1963-1967; performed research into new projectile design concepts, 1967-1971; developed approximate aerodynamic prediction codes, 1971-1981; served as aerodynamics and structures technology principal, 1977-1986; Head, Mathematical Analysis Branch, 1975-76; Head, Aeromechanics Branch, 1976-1988; Center IED coordinator, 1988-Present. Current assignments include Center IED Program, Weapons Systems Department Focus for Internal Technology Base Resources, and Center Focus for Computational Aerodynamics.



ALFRED M. MORRISON
PRINCIPAL AEROSPACE ENGINEER
STRATEGIC SYSTEMS DEPARTMENT (K201)

B.S., 1968, and M.S., 1970, in Aerospace Engineering, and Ph.D., 1972, in Aerospace and Mechanical Engineering (Missile Dynamics and Experimental Aerodynamics), University of Notre Dame. At NAVSWC since 1974. Performed research in the area of reentry physics and served as Hypersonic Wind Tunnel test engineer, 1974-1975; Director, Flight Mechanics Navy Aeroballistics Reentry Technology Program; Program Manager, Trident MK 4 Improved Accuracy Program, 1975-1977; scientific staff assistant to Technical Director NAVSWC, 1977-1978; Head, Aerodynamics Group, 1978-1981; Head, Reentry Systems Branch, 1981-1984; Acting Head, Weapon Dynamics Division, 1982-1983; chief reentry engineer and manager NAVSWC Trident II Missile Reentry System Program, 1984-present. Awards include: AIAA Engineer of the Year, 1981; AIAA Outstanding Service Award, 1985; Meritorious Civilian Service Award, 1987; and Engineering Excellence Award from D5 MK 5/W88 POG, 1988. Chairman, National Capital Section, AIAA, 1984. Member Sigma Xi, Naval Submarine League, and Associate Fellow AIAA. Currently engaged in the research and development of advanced reentry systems.



JAMES S. O'BRASKY
PRINCIPAL SCIENTIST
SURFACE WARFARE ANALYSIS OFFICE (D25)

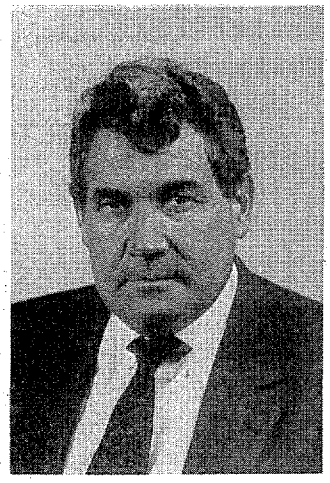
B.S. in Mechanical Engineering from Louisiana State University, 1969; graduate work in ESM at Virginia Polytechnic Institute and State University; graduate of Naval War College, 1982. At NAVSWC since 1969. Employed in product development, with focuses in forensic engineering and exploratory development of land warfare weapons, 1969-1982; large system concept formulation, 1982-1985; and large-scale system analysis, 1985-1990. Recognized expert in seminar gaming and analysis applied to future naval forces; 1-year detail, Center for Naval Warfare Studies, Naval War College, 1986. Performed concept formulation for or directed the development of nine items in current service use. Author of 18 technical reports, 12 technical papers, and joint holder of two patents. Received John Adolphus Dahlgren Award, 1978; Navy Meritorious Civilian Service Award, 1987. Developed and executed the Surface Warfighting-2030 Symposium. Registered Professional Engineer, Commonwealth of Virginia. Member NSPE, ASME, USNI, and MORS. Currently developing a set of alternate futures for use in the design of naval forces for the 2030-2050 time frame.

OVERTON C. PARRENT
PRINCIPAL SYSTEM SAFETY ENGINEER FOR UNDERWATER WEAPONS
UNDERWATER SYSTEMS DEPARTMENT (U32)

B.S. in Physics and Mathematics, Eastern Kentucky University, 1958; M.S. in Physics, Vanderbilt University, 1960; M.S. in Systems Management, University of Southern California, 1970. At NAVSWC since 1962. System safety engineer, analyst, and program leader for mines, swimmer weapons, and mine neutralization systems, 1970-1974; Head, Engineering Specialty Integration Group (safety, reliability, maintainability, human factors), 1975-1986; principal investigator for NSAP task on mines and safety assessment authority for foreign underwater weapons. U.S. Navy point-of-contact for MOU with Ordnance Board of U.K on mutually agreeable testing of munitions; Navy member NATO AC/310 SubGroup IV (Munition Systems); consultant to AC/310 SubGroup II (Fuzing Systems) and tri-service Fuze Engineering Standardization Working Group; safety director for Torpedo MK 50, Advanced Sea Mine, and mine neutralization systems. Guest lecturer on assurance technologies at George Washington University. Currently, Head, Engineering Specialties Branch; Department liaison with, and principal presenter to, the Navy's Weapon System Explosives Safety Review Board.

DONALD E. PHILLIPS
DISTINGUISHED RESEARCH PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R10A)

B.S. in Physics, St. Bonaventure University, 1957. At NAVSWC since 1957. Performed research in underwater nuclear explosions, 1957-1961; performed research on conventional undersea warheads and explosion effects, 1962-1974; headed Warhead Technology Assessment Phase of MK 50 Torpedo, 1975-1979; manager, Explosives and Undersea Warhead Block Program, 1974-present. Received Navy Superior Civilian Service Award, 1981; ADPA Bronze Medal, 1987; John Adolphus Dahlgren Award, 1987. Member ADPA and Naval Submarine League. Currently leading Navy and DARPA research efforts in underwater explosives and warheads.



JAMES R. POLLARD
PRINCIPAL SYSTEMS ENGINEER
COMBAT SYSTEMS DEPARTMENT (N04)

B.S. in Physics, Roanoke College, 1962; M.S. in Electrical Engineering, George Washington University, 1972; Ph.D. in Systems Engineering, University of Virginia, 1984. At NAVSWC since 1962. Performed research in antennas and electromagnetic coupling, 1962-1968; Head, Special Sensors Branch, 1968-1971; managed the SEW research program in high-power electromagnetic devices, 1971-1973; Head, Weapon Systems Division, 1973-1975; Head, Search and Track Division, 1975-1982; Head, Strategic Planning Group, 1982-1985. Served as the Warfare Systems Architect in SPAWAR, 1985-1987. Received the Bernard Smith Award, 1985. Member IEEE. Currently conducting studies of future shipboard combat system requirements, architectures, and design concepts.

JAMES L. QUEEN
PRINCIPAL ELECTRICAL ENGINEER
ELECTRONICS SYSTEMS DEPARTMENT (F05)

B.S., 1949, and M.S., 1956, in Electrical Engineering, University of Maryland. National Bureau of Standards, 1949-1954. ACF Electronics, 1954-1958. Applied Physics Laboratory, Johns Hopkins University, 1958-1977. At NAVSWC since 1977. Provided technical support to OP-03 Planning and Steering Advisory Group, 1979-1982; active in AAW ECM/ECCM. Received NAVSWC Science and Technology Excellence Award in 1989 for results of Kwajalein sea clutter test. Currently conducting additional clutter analysis and system design pertaining to coping with current and projected antiship missiles.

ALEXANDER G. ROZNER
PRINCIPAL METALLURGICAL ENGINEER
RESEARCH AND TECHNOLOGY DEPARTMENT (R32)

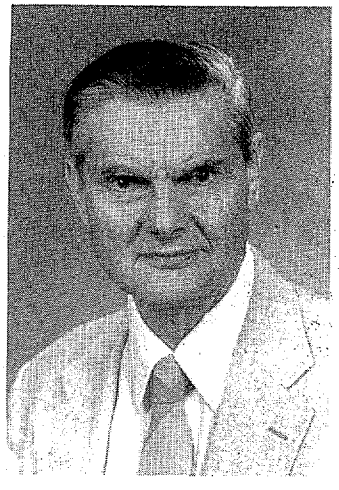
Diploma Engineer, 1950, and M.S. in Mechanical Engineering, 1952, Technical University, Krakow, Poland; Ph.D. in Metallurgical Engineering, University of Notre Dame, 1961. At DuPont Experimental Station, 1961-1964. Performed research on powdered metals and on explosive cladding of metals. At NAVSWC since 1964. Performed research in the field of mechanical deformation of alloys, 1964-1968; performed research in powder metallurgy, 1969-1973; invented and developed Pyronol Torch, 1973-1979; consultant to Joint Chiefs of Staff, Special Operations Division, 1980-1982; performed research on barriers perforation and new breaching technology, 1982-1985; invented and developed flying plate technology for various military applications, 1985-1990. Authored 22 patents, 20 papers in open literature, and 31 internal publications. Received Navy Meritorious Civilian Service Award, 1988. Member ASM and Sigma Xi. Currently performing research in the area of material deformation and structural demolition.

JOHN F. SCARZELLO
PRINCIPAL ELECTRONICS ENGINEER
RESEARCH AND TECHNOLOGY DEPARTMENT (R43)

B.S., 1964, and M.S., 1967, in Electrical Engineering, New York University. At DTRC, 1964-1968; worked on resonance magnetometers and geomagnetic noise. At NAVSWC since 1968. Performed research and development of magnetic materials for magnetometers used in NASA satellite magnetometers and of sensors for Navy tactical intrusion devices (Vietnam), sea mines, vehicle detectors, special warfare weapons, and arctic region research. Received Meritorious Civilian Service Award, 1987. Holds eight patents. Member IEEE, Magnetics Society, AGU, and AAAS. Currently doing R&D on electromagnetic sensors for sea mines and tactical and strategic surveillance systems.

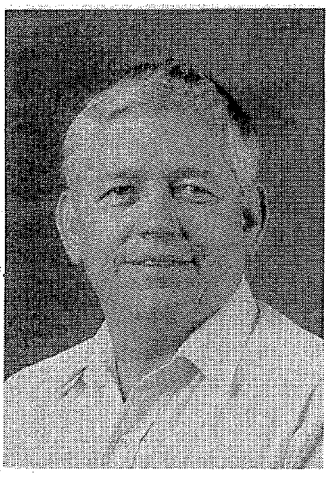
LEON H. SCHINDEL
PRINCIPAL AEROSPACE ENGINEER
STRATEGIC SYSTEMS DEPARTMENT (K204)

B.S., 1945, M.S., 1948, and Ph.D., 1960, in Aerospace Engineering, Massachusetts Institute of Technology; member of research staff, 1948-1967. At NAVSWC since 1967. Head, Aerodynamics Department, 1967-1975; Head, Missiles and Decoys Division, 1975-1976; Associate Head, Advanced Weapons Department, 1976-1978; research associate, Weapon Dynamics Division, 1978; performed research in missile and aircraft aerodynamics, magneto-aerodynamics, vortex induced oscillations, separation of stores from aircraft, wind tunnel design, heat and mass transfer. Technical consultant on missile aerodynamics, facility design, and related fields. Patents on thrust vectoring and radome cooling concepts. Member AIAA, Sigma Xi, and Navy Aeroballistics Committee. Currently developing design codes for air-breathing and rocket-propelled missiles; examining the feasibility of a high-temperature flow facility at NAVSWC.



LEONARD J. SCHWEE
PRINCIPAL PHYSICIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R41)

B. S. in Physics, Creighton University, 1960; graduate work at the University of Maryland and Catholic University of America, 1961-1965. At NAVSWC since 1960. Performed research on magnetic garnets, 1960-1964; thin-film magnetometers and recorders, 1964-1972; nonvolatile magnetic, rad-hard memories, 1972-1985; nonvolatile ferroelectric, rad-hard memories, 1985-1990. Holds 16 patents, with four pending; authored 48 technical publications; given 134 technical presentations (invited by universities, corporations, other government agencies, and technical societies); reviews contracts for other government agencies. Received Meritorious Civilian Service Award and John Adolphus Dahlgren Award. Member IEEE. Currently performing research on better ferroelectric materials for nonvolatile, rad-hard memories.

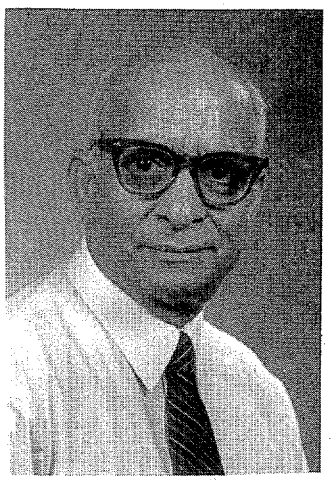


MORLEY C. SHAMBLEN
PRINCIPAL MECHANICAL ENGINEER
WEAPONS SYSTEMS DEPARTMENT (G302)

B.S. in Mechanical Engineering, West Virginia Institute of Technology, 1963; postgraduate studies in mechanical engineering, University of Oklahoma, Virginia Polytechnic Institute and State University, 1963-1970; M.A. course work in public administration, University of Northern Colorado. At NAVSWC since 1963. Conducted field testing and evaluations of various weapons systems, 1963-1969; team chief of a tri-service vulnerability test group which prepared proposals for an armor suit, 1969-1970; Program Manager of the Navy's 3-, 5-, 8-, and 16-inch malfunction investigations, 1970-1976; provided technical planning to the Marine Corps Exploratory Development Program for weapons development, 1976-1982 (intermittently); Head, Weapons Development Branch, 1980-1982 (and intermittently until 1984). Received Superior Civilian Service Award (USMC), 1984; John Adolphus Dahlgren Award, 1982. Holds three patents. Member ADPA, Naval Institute Society, and Professional Engineers, Commonwealth of Virginia. Currently, provides technical expertise to the Navy and Marine Corps in areas of man-portable, antiarmor, assault, and infantry weapons.

JAGADISH SHARMA
PRINCIPAL SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R34)

B.S., 1944, M.S., 1947, and Ph.D., 1953, in Physics, Calcutta University, India. Protege of Professor S. N. Bose, an Indian physicist, who developed the Bose-Einstein statistics (one of the fundamental concepts of modern physics). Served on the faculty of the Indian Institute of Technology, Kharagpur, India; research associate at Princeton University and at Brookhaven National Laboratory; research fellow with the National Research Council of Canada. Worked on defects in solids and developed the techniques in X-ray Photoelectron Spectroscopy (XPS) to examine explosives and propellants. At NAVSWC since 1981. Provided the first determination of the chemical nature of hot spots responsible for sensitization of explosives and propellants; this work opened up the possibility of detecting sensitization of energetic materials due to rough handling and aging. Received special awards for applying XPS with success to difficult explosive-related investigations including the LaGuardia bombing incident and an Army-Navy proximity fuze failure.



WILLIAM G. SOPER
DISTINGUISHED MECHANICAL ENGINEER
WEAPONS SYSTEMS DEPARTMENT (G04)

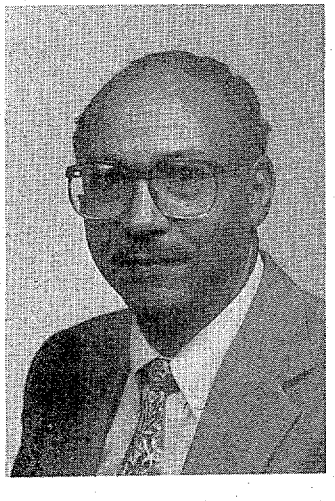
B.E. in Mechanical Engineering, 1952, M.E. in Engineering, 1953, and Ph.D. in Engineering Mechanics, 1956, John Hopkins University. At NAVSWC since 1960. Performed research in the application of scale models to weapons design, 1960-1965; worked in the areas of interior and exterior ballistics and in the structural dynamics of guarded munitions, 1965-1975. Received the John Adolphus Dahlgren Award, 1971. Served with the Office of Naval Research, London, 1976-1977. Currently performing research in the design of safer munitions through the application of hydrocodes.

JOHN R. STRAUB
PRINCIPAL SYSTEMS ENGINEER
COMBAT SYSTEMS DEPARTMENT (N412)

B.E. in Electrical Engineering, Manhattan College, 1968; graduate studies at University of Oklahoma and Virginia Polytechnic Institute and State University. At NAVSWC since 1968. Initial work in missile and gun system digital fire control; worked in design and definition of combat systems for new ship construction, 1975-1982; Cruise Missile Weapon System design and development, 1982-present. Received Bernard Smith Award, 1983. Member IEEE and ASNE. Currently, principal system engineer responsible for improvement and development of Cruise Missile Weapon Systems.

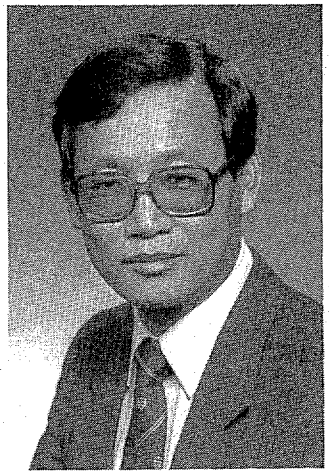
MICHAEL H. STRIPLING
DISTINGUISHED ELECTRONICS ENGINEER
UNDERWATER SYSTEMS DEPARTMENT (U04)

B.S., 1961, and M.S., 1964, in Electronics Engineering, University of Maryland. At NAVSWC since 1963. Performed research and development in signal processing and underwater acoustics; Head, Signal Processing Branch, 1972-1978; performed research on adaptive array processing, target tracking, and localization; staff scientist, ASW Division, 1979-1983; performed research and development on surface ship ASW systems; Head, Underwater Systems Technology Office, 1984-present. Received Meritorious Civilian Service Award, 1987. Currently performing research on acoustic sensor systems, ASW signal processing, and advanced processor technology.



HERMON W. THOMBS
PRINCIPAL COMPUTER SCIENTIST
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E401)

B.S. in Mathematics, North Carolina Central University, 1956; M.A. in Public Administration, University of Northern Colorado, 1973; graduate study in computer science and mathematics, American University and George Washington University. At NAVSWC since 1956. Performed R&D in computer system simulation, computer system diagnostic codes, interactive computer graphics, and computer operating systems; developed several scientific and engineering analysis codes. Head, Programming Systems Branch, 1967-1981; areas of work included R&D in virtual machine system architectures, computer emulations, high-level language machines, operating systems, and computer/human interfaces. Member ACM and IEEE Computer Society. Currently, senior computer scientist in the Computing Systems and Networks Division, performing R&D in high-performance computing technology, distributed computing, and open systems architecture.

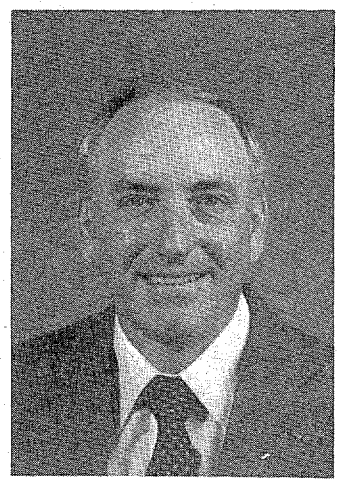


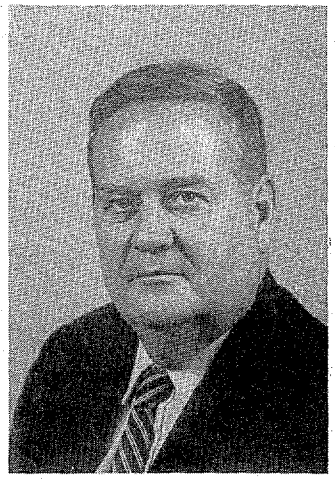
HAN S. UHM
PRINCIPAL PHYSICAL SCIENTIST
RESEARCH AND TECHNOLOGY DEPARTMENT (R41)

B.S. in Physics, Seoul National University, 1969; M.S., 1973, and Ph.D., 1976, in Physics, University of Maryland. Research Associate in Physics, University of Maryland, 1976-1978. At NAVSWC since 1978. Made significant research progress in the areas of nonneutral plasmas and the charged particle beam plasmas, which are characterized by a strong space charge and self-field effects. Research activities include the areas of: electron beam propagation in endo- and exo-atmosphere environments; high-power microwave generation and amplification; high-energy, high-current electron beam acceleration; heavy ion beam fusion; hard x-ray emission from super-dense plasmas; and thermonuclear fusion. All these areas have potential in various scientific and military applications. Currently working on wakefield wave phenomenon of a relativistic electron beam propagating through a tenuous background plasma and on high-power relativistic magnetrons. Received Center's Independent Research Excellence Award, 1985; Navy Meritorious Civilian Award, 1987. Member APS and IEEE.

JON J. YAGLA
PRINCIPAL MECHANICAL ENGINEER
PROTECTION SYSTEMS DEPARTMENT (H13)

B.A. in Science, State College of Iowa, 1965; M.S. in Engineering Mechanics, 1968; and Ph.D. in Aerospace Engineering and Engineering Science, Arizona State University, 1981; graduate studies at University of Oklahoma and American University. At NAVSWC since 1965. Performed research in nuclear weapons effects, 1965-1972; Head, Research Branch, Blast Effects Branch, and Ship Engineering Branch, 1972-1982; test conductor and test design agent, Battleship Reactivation Program, 1981-1985; analysis of blast and underwater shock effects on TOMAHAWK and STANDARD missiles and launchers, 1985-present. Published 41 technical papers; author of three ASNE Day papers. Presented papers at technical symposia in England, Germany, and Peoples Republic of China. Developed accuracy improvements for 16-inch guns; nine inventions and discoveries. Received Navy Meritorious Civilian Service Award, 1988; Superior Performance Awards, 1985, 1986, 1987. Letters of commendation from U.S. Department of Justice, 1988; Commander, NAVSWC, 1988; Commander, Air Force Human Resources Laboratory, 1981; and the Commanding General, Air Force Systems Command, 1981. Currently, chief engineer for Surface-Launched Weapons, Safety and Engineering Division; serving on the Editorial Board of the new Naval Surface Warfare Center Technical Digest.





CHARLES R. YARBROUGH
PRINCIPAL ELECTRONICS ENGINEER
STRATEGIC SYSTEMS DEPARTMENT (K08)

B.S. in Naval Science, U.S. Naval Academy, 1958; graduate studies in public administration, University of Oklahoma. Weapons, navigation, and deck watch officer in DD- and CV-class ships, 1958-1962. At NAVSWC since 1962. Project engineer for single and multiship TERRIER, TARTAR, and TALOS SMS shipboard EMC testing (CNO Project F/R-69) and user guidelines (OP-3840) introduction until 1967. Participated in ASMS/AEGIS, NSSMS, TOMAHAWK, F-111 PHOENIX/CONDOR, TRIM, TRAM, and HARPOON source selection; led NAVSWC development of the CIWS initial procurement performance specification; project leader, FLIR/LASER/EO shipboard gunnery FC demonstrations; project leader/system engineer for MK 68 Gunnery Improvement Program; project leader/system engineer for FLIR/LASER (S.E. Asia) supporting 36 CG/DD/FF deployers over 2-year period; project leader/system engineer for 5"/54 Guided Projectile FCS development; participated in the CNO/OP-03 DDX requirements and NAVSEA DDGX design studies, 1978-1979; DDG-51 project coordinator (OP-355), 1979-1982; PMS-400, DDG-51 system engineer, 1982; NAVSWC AEGIS Project Manager (N05), 1982-1985; NSAP Science Advisor to CINCPACFLT, 1985-1987, and 1989; initial NAVSWC manager for RAIDS project, 1987-1988. Received John Adolphus Dahlgren Award, 1979. Currently, Strategic Systems Department and NAVSWC representative on Naval Space Command Staff; Navy representative to CINCSPACE Ballistic Missile Defense and Strategic Defense Initiative.

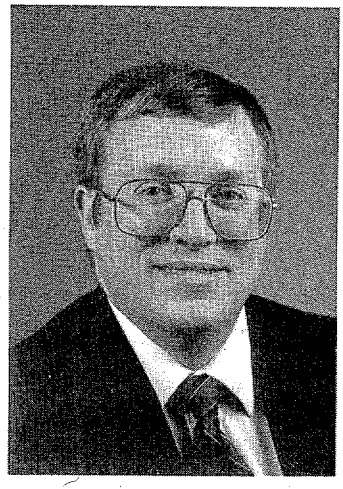
SENIOR
PROGRAM MANAGERS

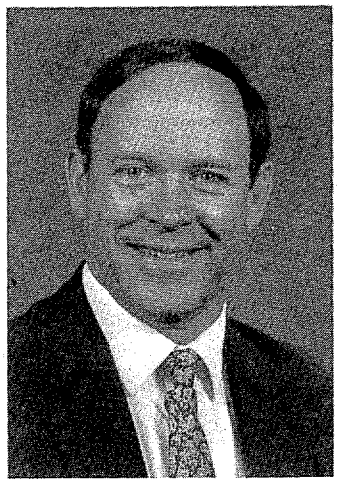
JOE L. BRUMFIELD
PRINCIPAL CHEMIST AND SENIOR PROGRAM MANAGER
PROTECTION SYSTEMS DEPARTMENT (H305)

B.S. in Chemistry, Mississippi College, 1960; graduate studies in biochemistry, University of Mississippi Medical Center, 1962-1964; M.A. in Public Administration, University of Northern Colorado, 1976. At NAVSWC since 1964. Responsible for the Navy's Chemical Technology Research Program, an Office of Naval Technology effort extending to several DOD laboratories and universities; senior researcher on a wide variety of programs including chemical microsensors, computer simulations, environmental control devices, bioluminescence, and chemical decontamination. Served as the International Data Exchange Officer between the U.S. and Germany and as the Associate Technical Project Officer between the U.S. Navy and Israel, the Netherlands, and France.

DANNY L. BRUNSON
SENIOR PROGRAM MANAGER
WEAPONS SYSTEMS DEPARTMENT (G06)

B.S. in Physics, Georgia Institute of Technology, 1969. At NAVSWC since 1964, beginning as coop student. Conducted exploratory development of warhead and advanced kill mechanisms, 1964-1973; Deputy Program Manager, 40mm Improvement Program, 1971; HIFRAG MOD 1 Program Manager, 1974-1977; attended Defense Systems Management College, Program Management Course, 1979; served as OPNAV action officer for guns and ammunition (OP-354), 1979; Head, Warhead Technology Branch, 1980-1986; Technical Manager, USMC's Mobile Protected Weapon System, 1980-1981; Warheads and Target Vulnerability Block Manager, 1984-1985; Surface-Launched Weaponry Block Manager, 1986-present.





HARRY E. CRISP II
SENIOR PROGRAM MANAGER
TECHNICAL DIRECTOR'S STAFF (D4)

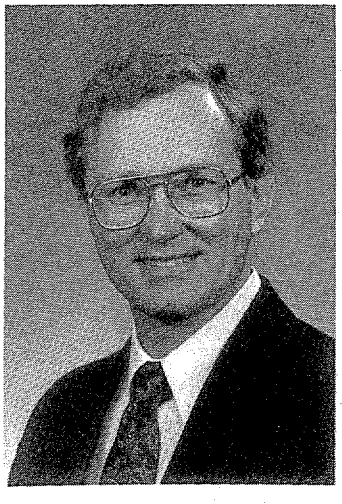
B.S. in Electrical Engineering, Clemson University, 1964; M.S., 1969, and Ph.D., 1971, in Electrical Engineering, Auburn University. At NAVSWC since 1971. Performed research in digital control systems, 1971-1975; served as NAVSEA project engineer for the MK 86 Fire Control System, 1976-1977; Program Manager for the MK 86 research and development program, 1978-1979; Head, Weapons Control Technology Branch, 1980-1983; Head, Information and Control Technology Branch, 1984-1985; Director, NAVSWC Independent Exploratory Development Program, 1986-1988. Received the Technical Director's Award for Excellence in Management of Technology Base, 1987. Member of IEEE. Currently, Head, NAVSWC Technology Base Program Office.

D. W. CULBERTSON
PHYSICAL SCIENCE ADMINISTRATOR & SENIOR PROGRAM MANAGER
PROTECTION SYSTEMS DEPARTMENT (H04)

B.S. in Mechanical Engineering, Virginia Polytechnic Institute and State University, 1958; graduate studies in physics and engineering, George Washington University, VPI&SU, and Norwich University, 1959-1970; engineering management, University of Richmond and VPI&SU, 1964-1975. At NAVSWC since 1954. RDT&E of naval ordnance, 1954-1964; Head, Nuclear Blast Effects Branch, Warhead and Terminal Ballistics Laboratory, 1964-1969; Head, Mechanical Design Branch and Materials and Applied Sciences Branch, 1970-1975; Deputy Head, Mechanics Division, 1975-1979; Head, Survivability Program Office Weapons, 1980-1989; deputy and acting SYSCOM program manager for advanced and engineering development of Navy CBR defense systems, 1985-present. Member NATO AC/225 Panel VII Naval SubPanel Working Group of Experts, 1985-present; U.S. Navy member of NATO AC/225 Panel VII Naval SubPanel, 1989-present. Received Navy Meritorious Civilian Service Award, 1966. Currently, Protection Warfare Systems Engineer.

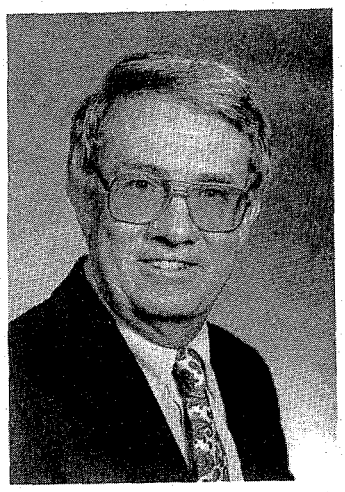
ROBERT E. EBY
SENIOR PROGRAM MANAGER
WEAPONS SYSTEMS DEPARTMENT (G40)

B.S. in Mechanical Engineering, University of Miami, 1958; specialized studies, University of Michigan, University of Maryland, and Georgia Institute of Technology. At NAVSWC since 1958. Fuze design engineer, 1958-1964; Fuze Project Manager, 1964-1975; Head, Fuze Development Branch, 1975-1982; STANDARD Missile (N) Project Manager and Technical Direction Agent, 1982-1985. Currently, Hypersonic Weapon Technology Project Manager and Chief Engineer of the Advanced Weapons Division.



MICHAEL R. GRESCO
PRINCIPAL ELECTRONICS ENGINEER & SENIOR PROGRAM MANAGER
PROTECTION SYSTEMS DEPARTMENT (H302)

B.S. in Electrical Engineering, Pennsylvania State University, 1969; M.S. in Electrical Engineering, University of Maryland, 1972. At NAVSWC since 1969. Project engineer in the Magnetic Fields Branch, 1969-1977; Assistant Director, Navy Science Assistance Program, 1977-1981; Acting Head of the Magnetic Fields Branch, 1982; Acting Head of the Survivability Division, 1990. Developed techniques and procedures for magnetic treatment of ships and specified equipment required. Managed NSAP tasks in the areas of electronics, magnetics, optics, and acoustics, including transition of successful ones to regular acquisition system. Led joint US/UK/CA efforts in surface ship magnetic silencing and, recently, joint US/FR efforts in closed-loop degaussing for mine countermeasure ships. Member IEEE. Currently, Head, Magnetic Silencing Office, leading efforts in magnetic signature reduction of naval vessels.

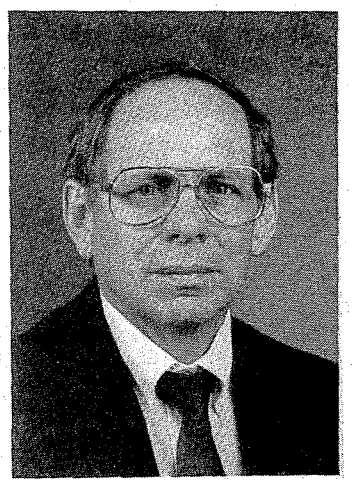


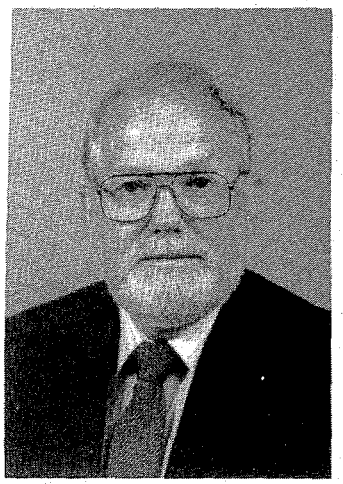
THOMAS B. HARRIS
SENIOR PROGRAM MANAGER
UNDERWATER SYSTEMS DEPARTMENT (U08)

B.S. in Mechanical Engineering, University of Maryland, 1958. At NAVSWC since 1958. Design/lead engineer air/surface ordnance systems, 1958-1976; Project Manager Remote ASW Systems, 1976-1980; Head, Acoustics Signal Processing Branch, 1980-1984; Head, Underwater Warhead and Special Weapon Systems Office, 1984-present. Received ADP Bronze Medal Award, 1988; Navy Meritorious Civilian Service Award, 1989. Currently managing development of the Torpedo MK 50 Warhead Baseline and P^{3}I, Anti-Torpedo Defense, and Swimmer Weapon System programs.

ROBERT W. HILL
SENIOR PROGRAM MANAGER
STRATEGIC SYSTEMS DEPARTMENT (K107)

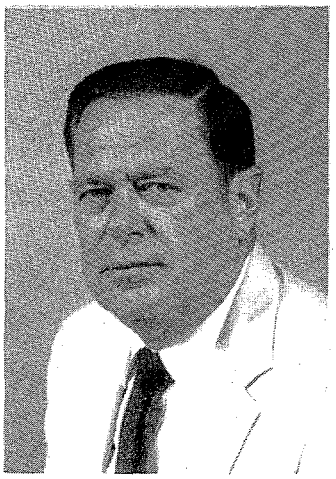
B.S. in Mathematics and Physics, Georgetown College, 1960; graduate studies in mathematics, physics, astrodynamics, system engineering at American University, Virginia Polytechnic Institute and State University, and University of California at Los Angeles. At NAVSWC since 1960. Performed research and development in satellite navigation and satellite geodesy, 1960-1970; Head, Satellite Systems Branch, 1970-1980; Head, Space Flight Science Branch, 1980-1985. Received Burka Award, Institute of Navigation, 1981; Defense Mapping Agency R&D Award, 1979. Member ION and American Geophysical Union. Currently, Head, Office of Space Technology and Systems Applications.





GLEN E. HORNBAKER
SENIOR PROGRAM MANAGER
WEAPONS SYSTEMS DEPARTMENT (G102)

B.S. in Mathematics, Kansas State College of Pittsburg, 1960; M.S. in Industrial Engineering, Michigan University, 1967. At NAVSWC since 1962. Performed operations research in Amphibious Warfare, 1962-1966 and 1968-1973. Full-Time Advanced Study Program, Michigan University, 1966-1968. NSAP Systems Analysis Advisor to COMNAVFORKOREA, 1973-1975; Head, Systems Analysis Branch, 1975-1986; Head, Joint Munitions Effectiveness Manual/Surface-to-Surface Delivery Accuracy Working Group, 1976-1986; technical assistant to Systems Analysis Division Head, 1986-1990. Navy principal member to the Joint Technical Coordinating Group for Munitions Effectiveness, 1986-present. Member Military Operations Research Society. Taught graduate-level courses in statistics and stochastic processes at the NAVSWC extension school and Michigan University. Currently conducting research studies in the area of conventional weapon effectiveness.

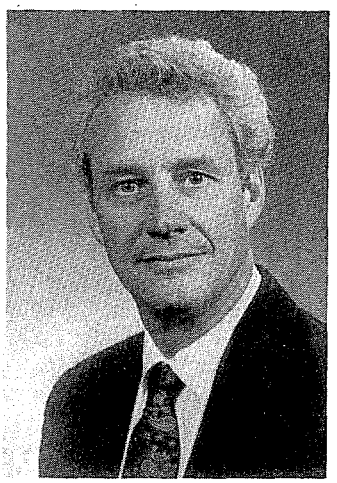


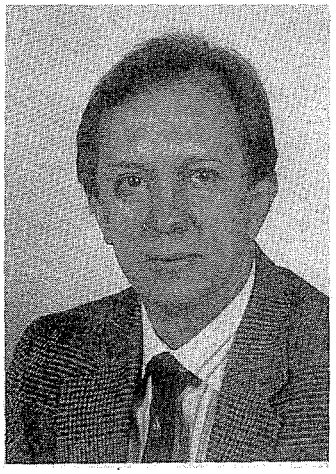
ROBERT L. HUDSON
SENIOR PROGRAM MANAGER
NAVAL WARFARE (OP-07) NAVSWC PROGRAM OFFICE (C07)

B.S. in General Science, Randolph-Macon College, 1960. At NAVSWC since 1956. Weapons Systems HERO test engineer, 1960-1965; Head, Planning and Reporting Section, 1965-1970; Head, Research Branch, Electromagnetic Vulnerability Division, 1971-1975; conducted projects associated with EMI, EMC, EMV, HERO, SEMI, and EMP; Head, Special Projects Branch, EM Effects Division, 1975-1983. Collateral duties as Navy principal member for Joint Logistics Commanders' Technical Coordinating Group (classified projects), 1975-1977, and to Under Secretary of Defense (classified projects), 1979-1980; Associate Division Head, Advance Projects Division, and Project Manager for special programs, 1983-1990. Currently, Program Manager for the Director of Naval Warfare (OP-07/C07), NAVSWC Program Office.

GEORGE H. LEINEWEBER, JR.
SENIOR PROGRAM MANAGER
UNDERWATER SYSTEMS DEPARTMENT (U07)

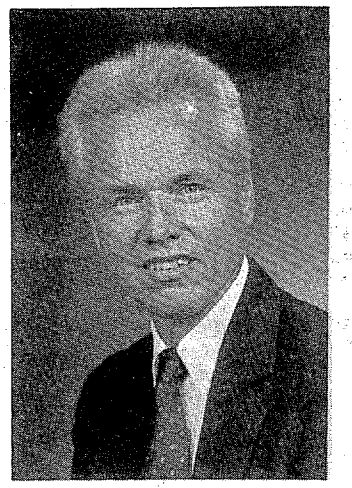
B.S. in Electrical Engineering, Clarkson College of Technology, 1968; graduate, Naval War College, 1990. At NAVSWC since 1968. System reliability engineer, 1968-1981; lead Mine MK 60 (CAPTOR) systems engineer, 1981-1983; CAPTOR acquisition engineer, 1983-1985; staff assistant in the Submarine/ASW Directorate, Office of the Assistant Secretary of the Navy (Research, Engineering and Systems), 1985-1986; Deputy Head and Head, Mine Systems Office, 1986-present. Member IEEE and ADPA. Currently responsible for Navy's research, development, test, and evaluation for ASW and ASUW mines.





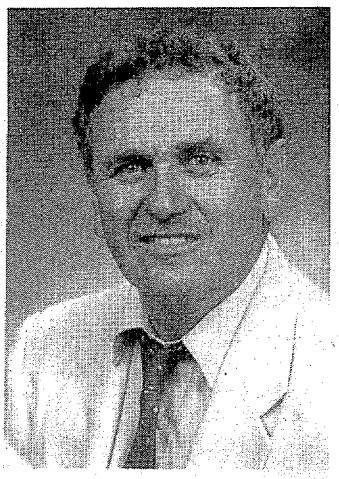
THOMAS H. McCANTS, JR.
SENIOR PROGRAM MANAGER
WEAPONS SYSTEMS DEPARTMENT (G205)

B.S. in Aerospace Engineering, Virginia Polytechnic Institute and State University, 1963. At NAVSWC since 1964. Performed research and development in missile weapon systems effectiveness and ordnance lethality since 1964; extensive experience in air target vulnerability, PHALANX system lethality, and TOMAHAWK survivability, 1964-1977; NSAP Science Advisor to COMOPTEVFOR, 1977-1978; conducted operational research analysis in support of AEGIS Weapon System, 1981; NAVSWC Project Manager for STANDARD Missile project, 1981-1990 Received Bernard Smith Award, 1988. Currently, Program Manager, Missile Systems (STANDARD/Vertical Launcher).



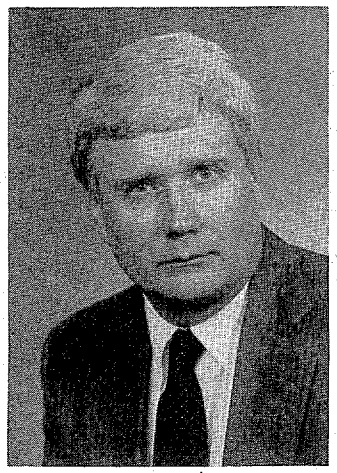
WILLIAM T. MESSICK
SENIOR PROGRAM MANAGER
STRATEGIC SYSTEMS DEPARTMENT (K205)

B.S. in Mechanical Engineering, Drexel University, 1968; M.S., 1971, and Ph.D., 1976, in Mechanical Engineering, University of Maryland. At NAVSWC since 1968. Performed research in the area of static and dynamic response of structures and materials, 1968-1977; developed high-temperature structural ceramic antenna window materials, 1977-1982; managed Materials Technology Program for hypersonic tactical missiles, 1982-1985; managed Weapons and Spacecraft Materials Technology Program, 1985-present. Acting Head of the Materials Division, Research and Technology Department, 1988. Associate Fellow of the AIAA. Currently, Manager, 6.2 Weapons and Spacecraft Materials Block Program.



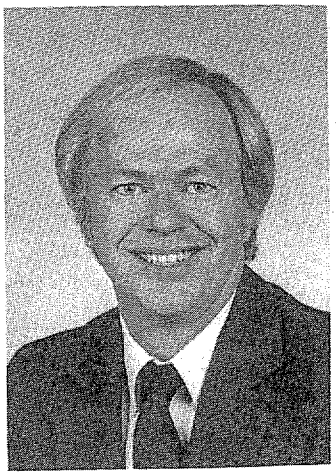
LOUIS J. MONTESI
SENIOR PROGRAM MANAGER
RESEARCH AND TECHNOLOGY DEPARTMENT (R12)

B.S. in Chemical Engineering, University of Massachusetts, 1957. Specialist in area of explosives: explosive characterization, explosive testing, and explosive component and system design and development. Currently, Program Manager for the IMAD Explosive Transition task and Program Manager for the HELLFIRE, the SEAHELLFIRE, and the TOW-2A insensitive munitions efforts at the Center.



EUGENE E. NOLTING
SENIOR PROGRAM MANAGER
RESEARCH AND TECHNOLOGY DEPARTMENT (R401)

B.S. in Physics and Mathematics, University of Northern Iowa, 1964; M.S., 1967, and Ph.D., 1971, in Physics, University of Miami. Academic research in controlled thermonuclear fusion; Assistant Professor of Physics, University of Miami, 1971-1974. Vice President in Charge of Research, International Business Research, Inc., 1971-1974. At NAVSWC since 1974. Performed research in the field of nuclear weapons effects simulator development; Head, Physics/Pulsed Power Group, Electronics Hardening Branch, 1981-1986; developed applications for multi-gigawatt pulsed power generators; headed the Navy research team that successfully developed prototype hardware for accurately steering ultrarelativistic electron beams, 1982-1988; leader of first U.S. research group to measure the spatial and temporal radiation environment in the vicinity of an intense relativistic electron beam propagating through full density air, 1986-1987. Member American Physical Society, Plasma Physics Division, Currently, Director, Charged Particle Beam Program Office.



STEPHEN W. PARKER
SENIOR PROGRAM MANAGER
COMBAT SYSTEMS DEPARTMENT (N06)

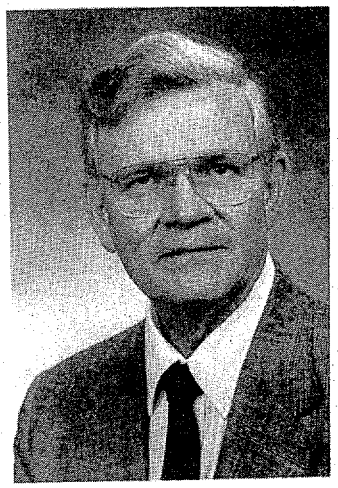
B.S., 1971, and M.S., 1975, in Electronics Engineering, University of Tennessee. At NAVSWC since 1971. System and test engineer for several shipboard Gun Fire Control System efforts. In 1978, transferred to NAVELEX, Washington, DC; system test director for submarine electronic warfare system. Returned to NAVSWC in 1982. AEGIS Combat System engineer, concentrating on AAW and C^3; Head, AEGIS Combat System Branch, 1987-1988; led initial efforts to develop Battle Force system engineering. NSTEP assignments at OPNAV for AEGIS and at SPAWAR for WSA&E. Member of IEEE. Currently, Program Manager for WSA&E.

REUBEN S. PITTS III
SENIOR PROGRAM MANAGER
COMBAT SYSTEMS DEPARTMENT (N05)

B.S. in Mechanical Engineering, Mississippi State University, 1968; graduate studies in engineering mechanics, Virginia Polytechnic Institute and State University, and in public administration, University of Northern Colorado. At NAVSWC since 1968. Performed engineering studies in gun ammunition safety, 1969-1972; Program Manager, Gun Ammunition Improvement Programs, 1972-1975; Design Manager, 8-inch Guided Projectile, 1976-1977; MAGIS Program, 1977-1979; NSAP Science Advisor to COMSIXTHFLT, 1981-1983; Assistant AEGIS Program Manager, 1985-1987. Received NSAP Outstanding Science Advisor Award, 1983; Superior Civilian Service Award (SIXTHFLT), 1984. Currently, Head, NAVSWC AEGIS Program Office.

BARRY PODOLSKY
SENIOR PROGRAM MANAGER
UNDERWATER SYSTEMS DEPARTMENT (U051)

B.S. in Electrical Engineering, 1964, and M.S. in Electronics Engineering, 1965, Illinois Institute of Technology. At NAVSWC since 1964. Principal designer of the signal processor for the Target Detection Device (TDD) 58 MOD 0, QUICKSTRIKE EX 65 Mine, 1970-1982; temporary assignment to NAVSEA (PMS-411) as MK 116 project engineer, 1983; performed dual role as system engineer for PMS-411 and Deputy Program Manager for the NAVSWC SQQ-89 Program Office, 1984-1989. Currently, chief engineer for the MK 116 MOD 7 Life-Cycle Support Activity.

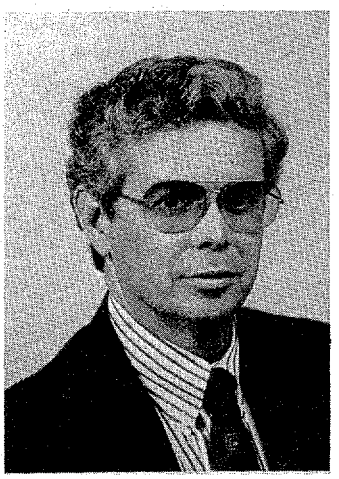


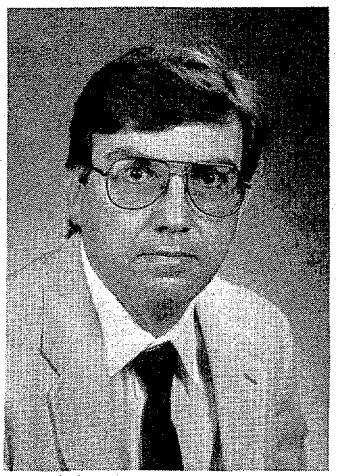
LESLIE A. ROSLUND
SENIOR PROGRAM MANAGER
RESEARCH AND TECHNOLOGY DEPARTMENT (R10)

B.A. in Physics and Mathematics, Doane College, 1958. At NAVSWC since 1958. Performed research in field of detonation physics, 1958-1978; specialist in explosive initiation, sensitivity, explosive response to hazards, and explosive performance; technical leader and manager of Navy Explosives Technology Program, 1979-present. Other contributions include service as senior Navy member for Munitions Initiation Task Group in DOD/DOE National IHEP Study, 1979-1982; explosive technology advisor for Surface-Launched Missile Technology Program, 1983-1984; national coordinator for Bullet/Fragment Impact Technology with TTCP-WP-1 Action Group (WAG-II) on Hazard Response of Energetic Materials, 1987-present; Chairman, Technical Coordination Group for Energetic Materials Development in Joint DOD/DOE Munitions Technology Development Program, 1987-present.

PETER J. STAFFORD, JR.
SENIOR PROGRAM MANAGER
STRATEGIC SYSTEMS DEPARTMENT (K105)

B.S. in Physics, Loyola University, New Orleans, 1966; M.E. in Systems Engineering and Computer Systems, University of Florida, 1971. At NAVSWC since 1966. Performed software and systems engineering for the A-6A and A-6E Airborne Fire Control Systems, 1966-1972; project engineer for the A-6 Program, 1973-1975; systems engineering manager and lead systems engineer for NAVSWC development of the Marine Air-Ground Intelligence Analysis System/Intelligence Analysis Center (MAGIS/IAC), 1975-1976; Program Manager, LHA-Intelligence Center Program, 1977-1985; Program Manager, Aircraft Carrier Intelligence Center, 1979-1985; Program Manager, MAGIS/IAC, 1981-1984; staff assistant to the Special EW Systems Division, 1985-1986, and to the Electronics Systems Department, 1986-1987; Director of Center Evaluation, 1987-1989; Deputy Program Manager for the Antisatellite (ASAT) Program, 1989. Currently, Program Manager, ASAT Program.





ROBERT L. STEVENSON
SENIOR PROGRAM MANAGER
UNDERWATER SYSTEMS DEPARTMENT (U05)

B.S. in Electronics Engineering, 1968, and M.S. in Computer Science, 1980, Johns Hopkins University. At NAVSWC since 1968. Performed research and development in acoustics and torpedo homing systems, 1968-1978; performed research and development of ASW signal processing techniques, 1979-1980; Head, Sensors Branch, 1981-1984; performed Surface Ship ASW Improvement Studies, 1985-1987; Technical Development Manager for Surface Ship ASW Systems, 1988-present.

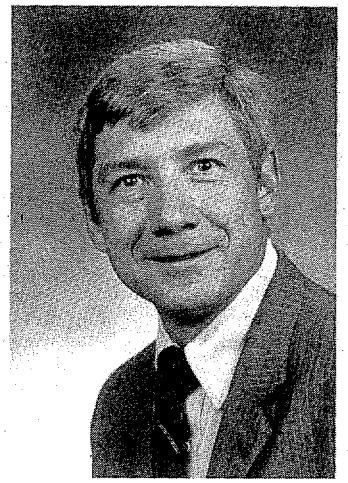
DEPARTMENT AND DIVISION LINE MANAGERS

KENNETH C. BAILE
DEPUTY DEPARTMENT HEAD
COMBAT SYSTEMS DEPARTMENT (N02)

B.S. in Physics, Seton Hall University, 1967; M.S. in Physics, University of Kansas, 1969; M.A. in Public Administration, Virginia Polytechnic Institute and State University, 1983; Senior Executive Education Program, Federal Executive Institute, 1984; additional graduate studies in public administration. At NAVSWC since 1969. Performed engineering in electronic warfare, 1969-1975; Head, Special Applications Branch (EW and directed energy), 1975-1979; Head, Advanced Projects Division, 1979-1981; Deputy Department Head, Electronics Systems Department, 1981-1982; Head, Special Electronic Warfare Division, 1982-1989; special assignment, Human Resource Strategic Planner, Personnel Department, 1989-1990. Received John Adolphus Dahlgren Award, 1986. Member Center Management Development Panel and Human Resources Board. Member IEEE. Currently, Deputy Department Head, Combat Systems Department.

F. EDWARD BAKER, JR.
DIVISION HEAD
COMBAT SYSTEMS DEPARTMENT (N10)

B.S., 1967, M.S., 1968, and Ph.D., 1971, in Electrical Engineering, Virginia Polytechnic Institute and State University; graduate Naval War College, 1988; Sloan Fellow with M.S. in Management from Massachusetts Institute of Technology, 1989. Performed theoretical and experimental research at DTRC in electromagnetics, acoustics, and shipboard power systems, 1971-1983. Assistant Director for S&T CNO executive panel (OP-00K), 1983-1984. Established and managed NAVSWC Surface Warfare Analysis Office, 1984-1988. Selected as the Outstanding Professional Employee by Baltimore Federal Executive Board and Young Engineer of the Year by NSPE, 1979; NSPE Federal Engineer of the Year and Naval Material Command Engineer of the Year, 1983. Received Navy Superior Civilian Service Award (CNO), 1984. Member Sigma Xi; Tau Beta Pi; Phi Kappa Phi; Eta Kappa Nu; and Kappa Theta Epsilon. Senior member IEEE; member ASNE and NSPE. Listed in Who's Who in America and Who's Who in the East. Two patents; authored many journal papers and technical reports. Currently, Head, Combat Systems Engineering and Assessment Division.

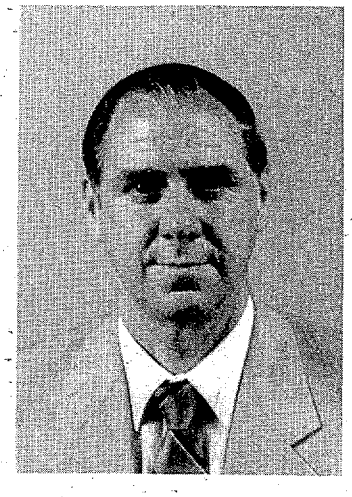


IRA M. BLATSTEIN
DEPARTMENT HEAD
RESEARCH AND TECHNOLOGY DEPARTMENT (R)

B.S. in Physics, Drexel University, 1967; M.S., 1971, and Ph.D., 1974, in Physics, Catholic University of America. Coop Program at Drexel University, combined with NADC Navy Scholarship, 1962-1967. At NAVSWC since 1967. Performed research as a research physicist and group leader in explosion effects/explosion acoustics in the Explosion Damage Branch; Head, Explosion Damage Branch, 1976-1980; NSTEP as staff assistant for ASW and surveillance in OP-987, 1980-1981; Head, Radiation Division, 1981-1985; Head, Engineering Department, 1985-1987; Deputy Technical Director, 1987-1988; Head, Research and Technology Department, 1988-present. Member American Physical Society and the Acoustical Society of America.

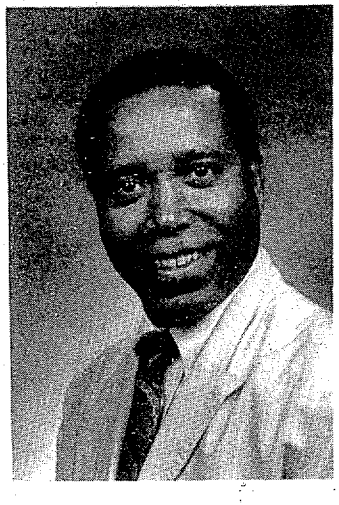
RAYMOND O. BRANCOLINI
DIVISION HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E40)

B.A. in Mathematics, Washington and Jefferson College, 1960; M.S. in Computer Science, Purdue University, 1969. At NAVSWC since 1960. Performed scientific software engineering, 1960-1973; detailed to USMC Development Center, 1973-1975; MAGIS Software Manager, 1975-1977; MAGIS Program Manager, 1977-1979; Head, Tactical Computer Systems Branch and TOMAHAWK OTH Software Coordinator, 1979-1984; NAVSWC Telecommunications Program Manager, 1984-1985; Computer and Information Systems Program Manager, 1985-1988. Adjunct Professor in Computer Science to University of Virginia and Virginia Polytechnic Institute and State University. NAVSWC representative for Navy Laboratory Computing Council. Received USMC Certificate of Commendation, 1975; Fredericksburg JC's Boss of the Year Award, 1980. Currently, Head, Computing Systems and Networks Division.



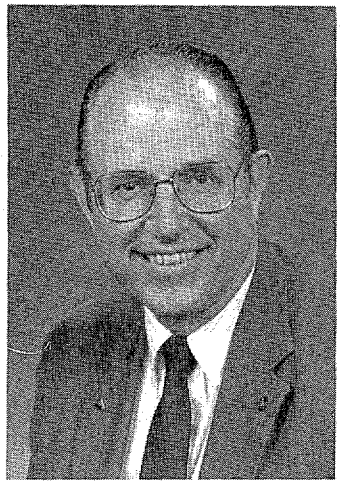
R. NEAL CAIN
DIVISION HEAD
COMBAT SYSTEMS DEPARTMENT (N30)

B.S. in Mechanical Engineering, West Virginia Institute of Technology, 1961. At NAVSWC since 1961. Terminal ballistics engineer, 1961-1965; warhead supporting research, 1965-1967; Manager, Aerial Target Vulnerability Programs, 1967-1969; assistant to OPNAV Gunnery Readiness Officer, 1970; Head, Target Vulnerability Branch, 1970-1972; analysis director, 5-inch Gunnery Improvement Program, 1972-1975; Head, NAVSWC/DL Planning Staff, 1975-1976; Head, AEGIS Combat System Elements Branch, 1976-1977; AEGIS Deputy Program Manager, 1977-1979; AEGIS Program Manager, 1979-1982; Head, AEGIS Ship Combat Systems Division, 1979-1985; Deputy Head, Combat Systems Department, 1985-1986; Head, Combat Systems Laboratory Project Office, 1986-1987. Member Tau Beta Pi. Currently, Head, Engineering and Technology Division.



KENNETH F. CAUDLE
DEPUTY DEPARTMENT HEAD
RESEARCH AND TECHNOLOGY DEPARTMENT (R02)

B.S. in Physics, Howard University, 1963; graduate, Federal Executive Institute, 1989. At NAVSWC since 1963. Performed research in the field of explosives (nuclear and nonnuclear) and their effects on systems, 1963-1981. Navy's technical representative to NATO, 1977-1981. Head, Nuclear Program Office, 1981-1983; Head, Electronics Hardening Branch, 1983-1984; Head, Electromagnetic Pulse Branch, 1984-1988. Currently, Deputy Head, Research and Technology Department.



DAVID B. COLBY
ASSOCIATE TECHNICAL DIRECTOR (D2)

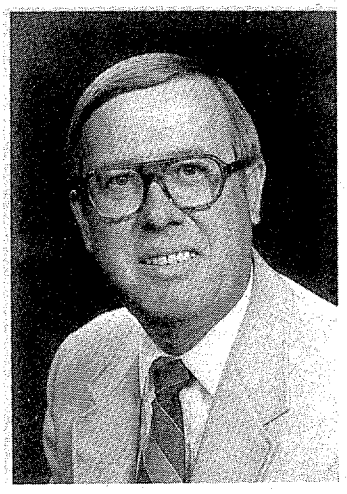
B.S. in Physics and Mathematics, Bates College, 1958; M.A. in Physics, Wesleyan University, 1960; The Executive Program, Darden School, University of Virginia, 1984; Session 33, Federal Executive Institute, 1975; and over 100 additional academic and professional courses from dozens of academic, professional, governmental, and service sources. At NAVSWC since 1961. Project leader, program manager, branch head, division head, and assistant department head, 1961-1971; Test Director, Fleet Research Project F/R-69, 1965; Panel Chairman, NRL Missile Threat Ship Defense Study, 1966; Group Chairman, CNO Surface-to-Surface Missile Study, 1968; NSAP Science Advisor to Marine Corps Development Center, 1970; Special Assistant, CNO Tactical Electromagnetic Programs Office, 1971; Deputy Director, OTP, Executive Office of the President (Nixon), 1971-1973; Chairman, Government Spectrum Economics Group, 1972; Head, Requirements Staff, 1973-1975; NWL/NOL Consolidation Team, 1974; Head, Combat Systems Department, 1975-1977; Associate Director, Dahlgren Laboratory, 1977; Navy Executive, CNO DDX Study, 1978; Associate Director (Evaluation), 1978-1979; Head, Electronics Systems Department, 1979-1982; Head, Engineering Department, 1982-1985 (with Protection Systems, 1985); Technology Management, Office of Undersecretary of Defense for Policy, 1985-1986; Head, Strategic Systems Department, 1986-1988; Associate Technical Director since 1988. Received Navy Meritorious Civilian Service Award, 1966; numerous commendations throughout career. Member several professional societies. Contributions to warfare systems understanding, technology development, systems support, resource and organization development, and strategic planning.

CHARLES A. COOPER
DIVISION HEAD
WEAPONS SYSTEMS DEPARTMENT (G20)

B.S. in Engineering Physics, University of Tennessee (Chattanooga), 1957; graduate, Defense Weapons Systems Management Center, Air Force Institute of Technology, Wright-Patterson AFB, Ohio; graduate studies in engineering management, American University. At NAVSWC since 1957. Performed missile warhead design, 1957-1972; served as Guided Projectile Project Manager, 1972-1974; NSAP Science Advisor to COMNAVFORKOREA, 1974-1975; scientific assistant to Technical Director and Associate Technical Director, 1975-1976; Head, Gun Systems and Munitions Division, 1976-1986. Received John Adolphus Dahlgren Award, 1986. Currently, Head, Missile Systems Division.

OLIVER PAUL CREDLE
DEPARTMENT HEAD
WEAPONS SYSTEMS DEPARTMENT (G)

B.S., 1961, and M.S., 1966, in Electrical Engineering, North Carolina State University. Design Engineer, Newport News Shipbuilding and Dry Dock Co., 1961-1966; Senior Research Engineer, ARO, Inc., 1966-1972; Vice President of Manufacturing, Lannom Manufacturing Co., 1972-1977; Vice President of Operations, Precision International, Inc., 1977-1980; Vice President of Marketing and Sales, Wild Heerbrugg, Ltd., 1980-1984; Vice President/President of Operations, Santa Barbara Applied Optics, 1984-1987; President, Optical Instruments Corporation, 1987-1988. At NAVSWC since 1988. Head, Weapons Systems Department, 1988-present. Member Optics Society of America, Society for Practicing Instrument Engineers, Fredericksburg Rotary Club, and the Vestory, Trinity Episcopal Church, Fredericksburg. Past member Santa Barbara Private Industry Council; Tau Beta Phi; and Eta Kappa Nu. Registered Professional Engineer. Currently, Head, Weapons Systems Department.

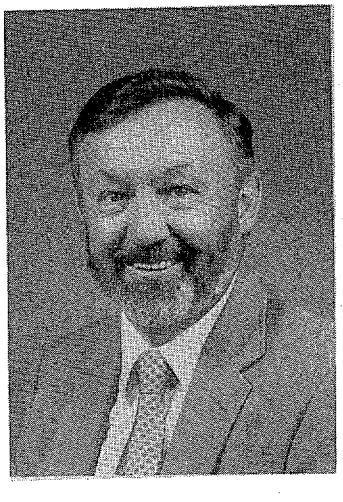


BERNARD F. DeSAVAGE
DIRECTOR, INDEPENDENT RESEARCH OFFICE
RESEARCH AND TECHNOLOGY DEPARTMENT (R04)

B. S. in Physics, Boston College, 1959; M.S. in Physics, University of Maryland, 1965; graduate, Naval War College, 1986. At NAVSWC since 1958. Performed research in the area of magnetic properties of rare earth compounds and metals, 1959-1966; performed exploratory development in nonacoustic surveillance, 1966-1977; Head, Electromagnetics Branch, 1977-1980; Head, Radiation Division, 1980-1981; Exploratory Development Manager, Mine Block Program, 1981-1986; NAVSWC Technology Base Coordinator, 1986-1989; special assistant to the Director of Navy Laboratories for Science and Technology, 1989-1990. Member Sigma Pi Sigma. Received Navy Meritorious Civilian Service Award, 1974. Currently, Director, Independent Research Office.

CHALMERS L. DETTINGER
DIVISION HEAD
WEAPONS SYSTEMS DEPARTMENT (G60)

B.S. in Engineering, Geneva College, 1958; graduate studies in engineering and mathematics. At NAVSWC since 1958. Design engineer on missile warheads and projectiles; conducted research on warheads and projectiles lethality; Engineering Development Manager for gun ammunition and missile warheads; Deputy and Acting Head, Munitions Division; Product Development Engineer, Gun Systems and Munition Division; Head, Gun Systems and Munition Division; Scientific Staff Assistant to Naval Research and Development Unit, Vietnam, 1967-1968. Awarded the Purple Heart by Commander, Naval Forces Vietnam, 1968. Received Meritorious Civilian Service Awards in 1969 and 1983. Currently, Head, Weapons Evaluation Division.

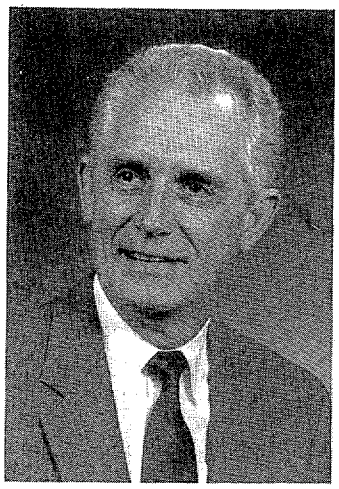


JAMES M. DOOLEY
DIVISION HEAD
STRATEGIC SYSTEMS DEPARTMENT (K50)

B.S. in Mathematics, West Virginia Institute of Technology, 1968; M.S. in Computer Systems, Naval Postgraduate School, 1978. At NAVSWC since 1968. Provided technical and planning support in IV&V of Fire Control System programs, data, documentation, and the strategic targeting data, 1976-82; Head, Quality Assurance Branch, 1982-1987; directed production of FCS formulations for D5 Performance and Evaluation Missile software and Initial Operational Capability software; Head, Fire Control Formulation Branch, 1987-1988; Received Bernard Smith Award, 1987. Currently, Head, SLBM Software Development Division, planning long-range needs and capabilities for advanced weapons systems as well as software and system engineering technology for the SLBM Program at NAVSWC.

RICHARD W. DORSEY
DIVISION HEAD
WEAPONS SYSTEMS DEPARTMENT (G70)

B.S. in Electrical Engineering, Virginia Polytechnic Institute and State University, 1966. At NAVSWC since 1962. Cooperative Education Program, 1962-1966; performed advanced development on elements of lightweight, modular fire control systems, 1966-1971; Project Manager for SPG-53E Fire Control Radar, 1971-1975; Head, Surface Weapons Technology Branch, 1975-1979; served as exchange scientist to the Admiralty Surface Weapons Establishment, Anti-Shipping Missile Group, United Kingdom, 1979-1980; Program Manager for Combat Systems Laboratory, 1981-1986. Currently, Head, Weapons Control Division.

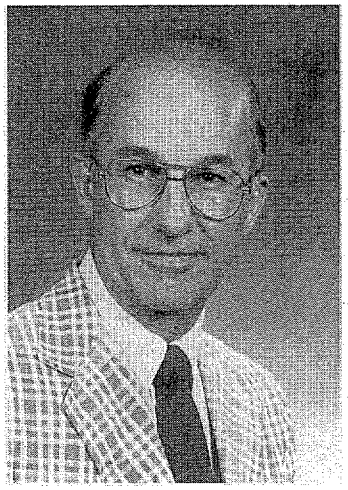


CARLTON W. DUKE, JR.
DEPARTMENT HEAD
COMBAT SYSTEMS DEPARTMENT (N)

B.S. in Engineering Mathematics, North Carolina State University, 1959; graduate studies, North Carolina State University and George Washington University. At Naval Proving Grounds, 1959. At NAVSWC (NWL), 1960-1966. At ORI, 1966-1968. Returned to NAVSWC in 1968. Currently, Head, Combat Systems Department.

J. RALPH FALLIN
DEPUTY DEPARTMENT HEAD
STRATEGIC SYSTEMS DEPARTMENT (K02)

B.S. in Mathematics, University of Richmond, 1965; graduate study in mathematics and physics under NAVSWC Continuing Education Program. At NAVSWC since 1966. Performed research and analysis for SLBM Weapon Systems, 1966-1977; Head, Fire Control Formulation Branch, 1977-1982; Head, Programs Branch, 1982-1983; Head Systems and Environment Analysis Branch, 1984-1987; Head, Space and Surface Systems Division, 1987-1990. Currently assisting in management of Strategic Systems Department.

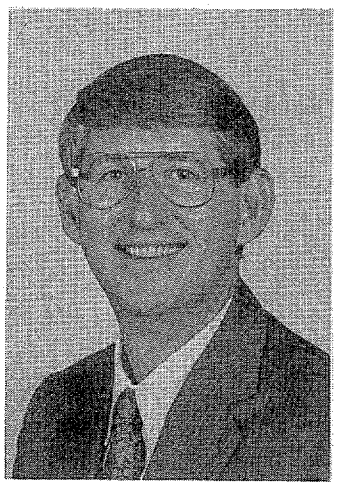


C. A. FISHER
DIVISION HEAD
STRATEGIC SYSTEMS DEPARTMENT (K20)

B.S. in Electrical Engineering, Union College, 1958; M.S. in Electrical Engineering, University of Maryland, 1964. At NAVSWC since 1958. Began career working on arming and fuzing systems for air-launched weapons; designed VHF transmitters for sonobuoys, 1960-1964; headed working group in the areas of underwater acoustics, signal processing, storage displays, VHF communications, and the development of intrusion detectors and other devices needed on a quick-response basis for Southeast Asia, 1964-1968; Head, Electrical Division, 1968-1970; CAPTOR Deputy Project Manager, 1970-1974; Head, Radar and Fuzing Division, 1975-1976; Head, Weapon Dynamics Division since 1976, providing technical expertise in aerodynamics, structures, and high-temperature materials to Navy reentry system and tactical missile development programs.

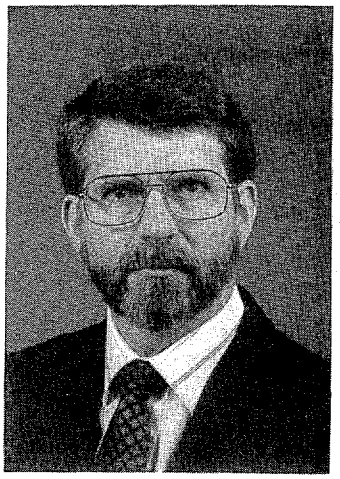
LEONARD J. FONTENOT
DIVISION HEAD
PROTECTION SYSTEMS DEPARTMENT (H20)

B.S. in Physics, Loyola University, 1966; graduate studies in physics and engineering, Louisiana State University and American University. At NAVSWC since 1966. Performed research in electro-optical sensors and lasers, 1966-1970; performed laboratory and fleet demonstrations on the application of E sensors and lasers to gun and missile fire control, laser-guided projectile illumination, and chemical warfare detection, 1970-1974; Head, Electro-Optical Systems Branch, 1974-1980; served as SEAFIRE Program Manager, 1977-1980; detailed to Pentagon as Head, Surface Gunnery Systems (OP-354G), 1980; Head, Missile Fire Control Branch, 1980-1983; NSAP Science Advisor to Commander, Third Fleet, Pearl Harbor, Hawaii, 1983-1985; Director, Center Planning Staff for Strategic and Tactical Planning, 1985-1988, leading the planning and justification of Center resources for manpower, programs, and facilities. Received NSAP Science Advisor of the Year Award and the Navy Meritorious Civilian Service Award in 1985. Currently, Head, Electromagnetics and Nuclear Effects Division.



JOSEPH H. FRANCIS
DIVISION HEAD
WEAPONS SYSTEMS DEPARTMENT (G30)

B.S. in Physics, 1964, and M.S. in Electrical Engineering, 1966, North Carolina State University. At NAVSWC since 1964. Research and development physicist, HERO Division, 1964-1968; electrical engineer and EMPASS Program Manager, 1968-1971; Head, Electronics Branch, 1971-1975; Branch Head and Program Manager, MAGIS Intelligence Analysis Center development, 1975-1978; Head, Systems Engineering and Missile Systems Office, 1978-1981; Head, Electro-Optical Systems Branch, 1981-1985; Head, Computer and Information Systems Division, 1985-1989; Deputy Department Head, Strategic Systems Department, 1989. Currently, Head, Guns Systems and Munitions Division.

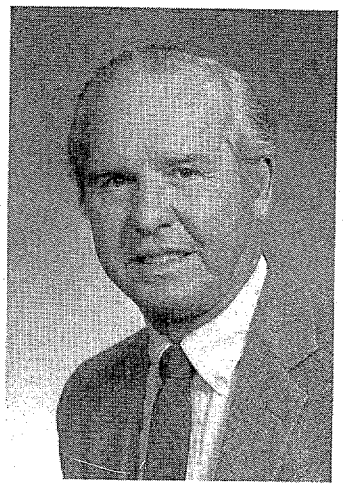


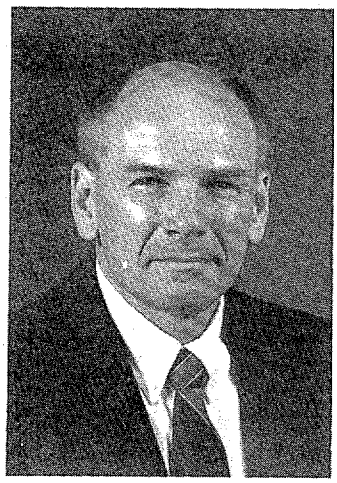
CHARLES E. GALLAHER
DIVISION HEAD
WARFARE SYSTEMS DEPARTMENT (J30)

B.S. in Electrical Engineering, West Virginia Institute of Technology, 1968; M.A. in Political Science and Public Administration, Virginia Polytechnic Institute and State University, 1982. Graduate, Federal Executive Institute Program--Leadership for a Democratic Society, 1989. At NAVSWC since 1968. Developed electromagnetic environment handbook and electromagnetic-interference design guide for weapon systems, 1969-1972; developed and managed electromagnetic vulnerability assessment facilities, 1972-1975; Project Manager, HAVE NAME, 1976-1980; Project Manager for Special EW Systems, 1980-1983; Head, Special Projects Branch, 1983-1985; Head, Tactical EW Systems Division, 1985-1988; Head, Special EW Systems Division, 1988-1990. Received NAVSWC Human Awareness Award, 1985. Currently, Head, Warfare Systems Development Division.

JACQUES E. GOELLER
DEPUTY DEPARTMENT HEAD
UNDERWATER SYSTEMS DEPARTMENT (U02)

B.S. in Mechanical Engineering, University of Maryland, 1955; M.S. in Mechanical Engineering, Drexel University, 1966; Ph.D. in Mechanical Engineering, Catholic University of America, 1969. At NAVSWC since 1967. Experienced in hydroballistics; applied mechanics; aerodynamics and wind tunnel testing; hydrodynamics and system analysis of mines, torpedoes, and surface-launched missiles. Head, Hydroballistics and Mechanics Branch, 1967-1974. Head, Reentry Systems Branch, 1974-1981; Head, Systems Engineering Division, 1981-1988. Currently, Deputy Department Head, Underwater Systems Department.





GARY J. GRITTNER
DEPUTY DEPARTMENT HEAD
ELECTRONICS SYSTEMS DEPARTMENT (F02)

B.S. in Chemistry, 1967, and Ph.D. in Polymer Chemistry, 1970, North Dakota State University. At NAVSWC since 1970. Performed research in chemical warfare, 1970-1972; developed nonmetallic projectile components, 1972-1973; NSAP Coordinator, 1974-1975; performed system engineering for combat systems and intelligence processing systems, 1975-1981; detailed to NAVSEA Combat Systems Engineering Staff, 1979; Head, Information and Control Technology Branch, 1981-1986; detailed to NAVMAT Outer Air Battle Study, 1985; Head, Command Support Systems Division, 1986-1988; member Finance and Business Systems Resource Board, 1987-1990. Member ASNE and Association of Old Crows. Naval Reserve Officer. Selected as NSAP Science Advisor to CINCPACFLT for FY 1992-1993. Currently, Deputy Head, Electronics Systems Department.

COMMANDER JOEL N. HEURING, USNR
SCIENTIFIC AND TECHNICAL INTELLIGENCE LIAISON OFFICER (D22)

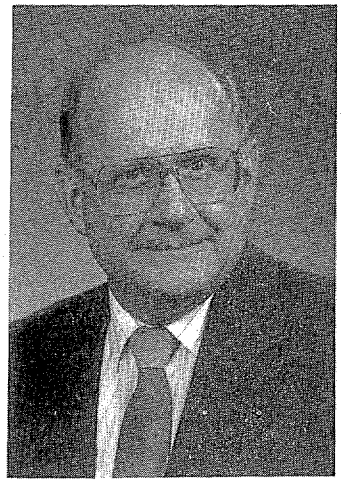
B.S. in Industrial Management, Purdue University, 1969. Qualified Surface Warfare Officer. Designated Subspecialist in Electronic Warfare; Command, Control, Communications, and Intelligence; Antiair Warfare; and Cover and Deception. Served aboard destroyers and guided missile cruisers in various operations, weapons, and executive billets, 1969-1979; Director, Tactical Action Officer School, 1981-1982; Assistant Operations and Plans Officer, Navigator, and Flag Tactical Action Officer, Staff, Cruiser-Destroyer Group EIGHT, 1982-1983; Director, Mobile Sea Range, 1983-1986. Completed 88 weeks of tactical and technical training. Military assistant to Head, Electronics Systems Department, 1986-present.

JAMES F. HORTON
DIVISION HEAD
PROTECTION SYSTEMS DEPARTMENT (H30)

B.S. in Mechanical Engineering, North Carolina State University, 1963; graduate studies in public administration, University of Oklahoma. At NAVSWC since 1963. Weapons engineer, 1963-1969; Program Manager, Weapons Survivability in Fire Program, 1969; Program Manager, 5-Inch Close Aboard Premature Investigation, 1970; Head, Concepts Exploitation Group, 1971; Head, Systems Safety Engineering Branch, 1972-1978; scientific assistant to the Technical Director, 1974; Head, Combat Systems Engineering Branch, 1979; Head, Systems Safety Division, 1980-1983; Deputy Head, Combat Systems Department, 1983-1985; Head, AEGIS Ship Combat Systems Division, 1985-1989. Received NAVSWC Human Awareness Award, 1985. Member of ASNE. Registered Professional Engineer. Currently, Head, Magnetic and Chemical Biological Warfare Countermeasures Division.

JOHN M. JOHNSON
DIVISION HEAD
WARFARE SYSTEMS DEPARTMENT (J10)

B.S. in Electrical Engineering, West Virginia Institute of Technology, 1972; Master of Public Administration Program, Virginia Polytechnic Institute and State University. At NAVSWC since 1972. Worked on cover and deception projects, 1972-1984; Head, Counter C^3 Branch, 1984-1989; Head, Special Weapons Systems Concepts Branch, 1989-1990. Member Tau Beta Pi and IEEE. Currently, Head, Warfare Analysis Division.

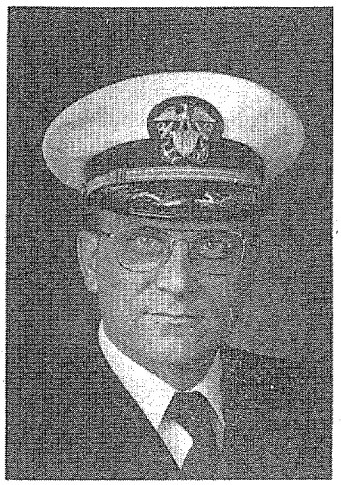


ALLEN M. JOX
DIVISION HEAD
UNDERWATER SYSTEMS DEPARTMENT (U30)

B.S. in Electrical Engineering, Valparaiso University, 1959; master's degree in Engineering Administration, George Washington University, 1965. Instrumentation design engineer at Naval Research Laboratory, 1959-1962. At NAVSWC since 1962. Weapon systems (SUBROC) test equipment evaluation engineer; systems reliability project engineer for underwater weapons; lead technical evaluation engineer, CAPTOR Mine MK 60, 1962-1975; Head, Field Support Branch, Ordnance Systems Assessment Division, 1975-1979; Head, Systems Readiness Branch, Systems Engineering Division, 1979-1982; Head, Surface Antisubmarine Warfare Division, 1982-1983; detailed to NAVSEA (PMS-411) as lead systems engineer, 1983-84; Deputy Head, Underwater Systems Department, 1985-1988. Currently, Head, Systems Engineering Division.

CHRIS A. KALIVRETENOS
DIVISION HEAD
UNDERWATER SYSTEMS DEPARTMENT (U20)

B.S. in Mechanical and Aeronautical Engineering, 1963, and M.S. in Fluid and Flight Mechanics, 1972, Catholic University of America. At NAVSWC since 1963. Conducted a variety of wind tunnel research and development tests on missiles, rockets, and reentry vehicles, 1963-1965; managed Hypersonic Tunnel, 1966; performed aeronautical research and development of projectiles, rockets, and missiles, 1967-1975; detailed to NAVSEA (OP-352); MITOR Program Manager and SIRCS Weapons Control Team Leader, 1976-1977; Head of R&D coordination, NAVSEA (SEA-06D), 1978-1980; Head, Surface Warfare Planning and Technical Assessment Branch, 1980-1981; Head, Analysis Branch, 1981-1983; Head, Combat Systems Engineering and Assessment Division, 1983-1986; Acting Associate Technical Director, 1985; Head, Sensors and Electronics Division, 1986-1989. Member ACP, FBS, and HRB boards. Six invention awards; two patents pending. Currently, Acting Head, Underwater Systems Department.

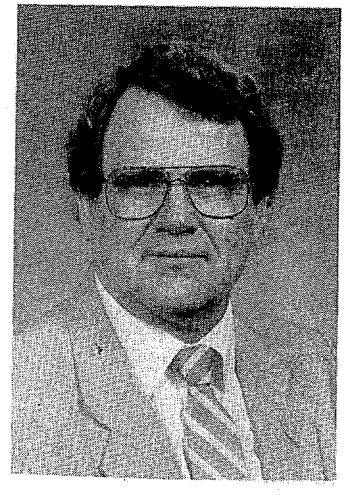


COMMANDER JOHN J. KREN, USN
CHIEF STAFF OFFICER (C2)

B.A. in Physics, Marist College, 1970. Commissioned U.S. Navy, Officer Candidate School, Newport, Rhode Island, 1972. Served on a number of ships and at various shore commands on the East Coast. At NAVSWC since 1988. Military Assistant, Strategic Systems and Weapons Systems Departments; temporary assignment as Director, Morale, Welfare, and Recreation. Currently, Chief Staff Officer, dealing with base oversight and operations.

DAVID W. LANDO
DIVISION HEAD
STRATEGIC SYSTEMS DEPARTMENT (K40)

B.S., 1968, M.S., 1970, and Ph.D., 1972, in Aerospace Engineering, University of Notre Dame. At NAVSWC since 1972. Provided technical and planning support in SLBM advanced development systems including maneuvering reentry vehicle design and deployment, flight test, simulation, and fire control presettings, 1972-1978; MK 50 Program Manager responsible for effectiveness studies, strategic targeting and fire control design implementation, and flatpad and SSBN flight tests, 1979-1983; systems deployment analyst developing and implementing strategic targeting methodologies for SLBM systems, 1983-1987; SRS Program Manager, 1987-1988; Head, Strategic Targeting Branch, 1988-1990. Currently, Head, SLBM Research and Analysis Division.

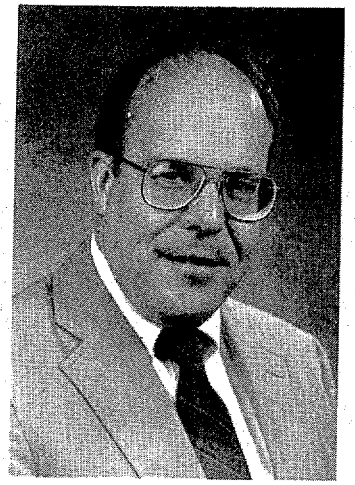


CARL W. LARSON
DIVISION HEAD
RESEARCH AND TECHNOLOGY DEPARTMENT (R40)

B.S. in Physics, Mississippi College 1957; completed continuing education courses, American University, Johns Hopkins University, and University of Maryland, 1964-1983. Over 14 years of industrial R&D experience in the area of optics and optical design. At NAVSWC since 1971. Principal for optical design, evaluation, and consultation for systems such as high-energy laser, infrared search and track, and IR missile seeker; Head, Electro-Optics Branch, 1983-1985. Received Award of Merit for Group Achievement, 1979; four Letters of Appreciation. Holds two patents assigned to industrial employer. Member Optical Society of America. Currently, Head, Physics and Technology Division.

RICHARD T. LEE
DIRECTOR, CENTER PLANNING STAFF (D21)

B.S. in Mathematics and Physics, Samford University, 1964; M.S. in Physics, Florida State University, 1966. At NAVSWC since 1966. Conducted operations research in large-scale warfare simulations, 1966-1969; developed and implemented a radar frequency management program in the fleet, 1969-1974; NSAP Laboratory Representative to Commander, Third Fleet, 1974-1975; performed combat system engineering, 1976-1979; served as manager of NAVSWC's TARTAR programs, 1979-1984; Head, AEGIS Weapon Direction Systems Branch, 1984-1988. Received Bernard Smith Award, 1973. Currently, Director, Center Planning Staff, with responsibility for strategic planning and corporate analysis.



MICHAEL J. LINDEMANN
HEAD, SURFACE WARFARE ANALYSIS OFFICE (D25)

B.S. in Mathematics, Brescia College, 1964; M.S. in Operations Research, George Washington University, 1971. At NAVSWC since 1971. Headed Surface Target Section, Weapons Effectiveness Branch; appointed to Advanced Gun System Development Group, 1973; detailed to NAVSEA as Deputy Program Manager with the Shipboard Intermediate Range Combat System, 1975-1978; headed Modular Fire Control Program; DDGX Program Manager, 1980-1982; appointed AEGIS Deputy Program Manager for Development Engineering in DDGX/AEGIS merger; Head, AEGIS Combat Systems Engineering Branch, 1985-1986; Head, Combat Systems Engineering and Assessment Division, 1986-1989. Served a 1-year assignment at the Center for Naval Analyses to lead OP-03's Revolution at Sea 2020 Study, 1989-1990. Member ASNE, USNI, and MORS. Currently, Head, Surface Warfare Analysis Office.

FRANCIS H. MAILLIE
DIVISION HEAD
PROTECTION SYSTEMS DEPARTMENT (H10)

B.S. in Aeronautical and Astronautical Engineering, Northrop Institute of Technology, 1964; M.S., 1967, and Ph.D., 1972, in Aerospace Engineering, Iowa State University. At NAVSWC since 1972. Performed research in computational analysis and simulation of weapons firing effects, 1972-1975; managed U.S. Navy Structural Test Firing Program, 1975-1981; Head, Ship Engineering Branch, 1981-1990. Currently, Head, Combat Systems Safety and Engineering Division.

DAVID S. MALYEVAC
DIVISION HEAD
WEAPONS SYSTEMS DEPARTMENT (G10)

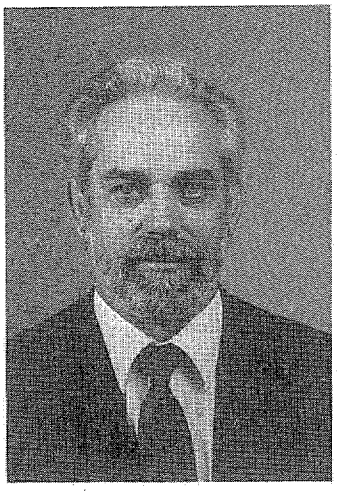
B.S. in Metallurgical Engineering, Montana College of Mineral Science and Technology, 1959; M.S. in Metallurgical Engineering, Lehigh University, 1964; attended Federal Executive Institute (Session 57), 1983. Active Duty U.S. Navy, 1959-1962; Test and Evaluation Officer; Captain, USNR, Retired. At NAVSWC since 1959. Conducted air target vulnerability studies, 1962-1963; Head, Materials Branch, 1965-1968; special assignment to ZAP Program Office, 1968; Head, Materials Science Division, 1968-1969; Head, Munitions Division, 1971-1972; Deputy Head, Surface Warfare Department, 1972-1973; scientific assistant to Technical Director and Head, Advanced Gun Systems Development Group, 1975-1983; Executive Secretary, Joint Directors of Laboratories, Office of the Director of Navy Laboratories, 1983-1984. Received Joint Logistics Commanders Certificate of Merit Award, 1985. Currently, Head, Systems Analysis Division.

MICHAEL L. MARSHALL
HEAD, DIRECTOR OF NAVY LABORATORIES
CORPORATE PROJECTS OFFICE (D28)

B.S. (with honors), 1967, and M.S., 1972, in Physics, University of North Carolina; Juris Doctor, Law, University of Maryland School of Law, 1976. At NAVSWC since 1967. Performed research in detonation physics, explosion effects, and ordnance, 1967-1982; visiting member of staff, Admiralty Marine Technology Establishment, Dunfermline, Scotland, 1978-1979; Head, Explosion Damage Branch, 1982-1987; assigned to staff, Director of Navy Laboratories, as Special Assistant for Science and Technology, 1985-1986; Head, Systems Accuracy Branch, 1987-1988; Head, DNL Corporate Projects Office, 1988-present. Member Phi Eta Sigma and Phi Beta Kappa Scholastic Honor Societies. Member Maryland Bar since 1976. Currently providing technical and management consultation and support to DNL; member Executive Secretariat, Joint Directors of Laboratories.

COMMANDER WILLIAM J. McELHINNEY, USN
MILITARY ASSISTANT
WEAPONS SYSTEMS DEPARTMENT (G01)

B.A. in Business, Saint Leo College, 1979. Limited Duty Officer (Surface Ordnance); Surface Warfare Officer. Operational assignments have included: fire control technician/supervisor, USS KENNETH D. BAILEY (DDR-713), 1961-1962; USS MYLES C. FOX (DDR-829), 1962-1963; USS HARWOOD (DD-861), 1963-1964; USS FORT MANDAN (LSD-21), 1966-1967; USS HERMITAGE (LSD-34), 1967-1969; Assistant Weapons Officer, USS BORIE (DD-804), 1969; Ordnance Repair Officer, USS CASCADE (AD-16), 1970-1973; Missile Officer, Ships Gunner, USS KITTY HAWK (CV-63), 1975-1976; Missile Officer, First Lieutenant, Combat Systems Officer, USS NORTON SOUND (AV-1), 1980-1984. Shore assignments have included: Fire Control Technician School, Bainbridge, MD, 1960-1961; Warrant Officer Indoctrination School, Newport, RI, 1969; Fire Control Maintenance Officer, Fleet Antiair Warfare Combat Direction Training Center, Dam Neck, VA, 1973-1974; Missile Officer TALOS/STANDARD, Naval Weapons Station, Yorktown, VA, 1977-1978; Battleship Combat Systems Trials Officer, TOMAHAWK Weapons Systems Certification Officer, NSWSES, Port Hueneme, CA, 1984-1988; Assistant Director, Cruise Missiles Project Office, Titusville, FL, 1988-1989. At NAVSWC since 1989. Currently, Military Assistant, Weapons Systems Department.



JAMES I. MILLER
DIVISION HEAD
ELECTRONICS SYSTEMS DEPARTMENT (F40)

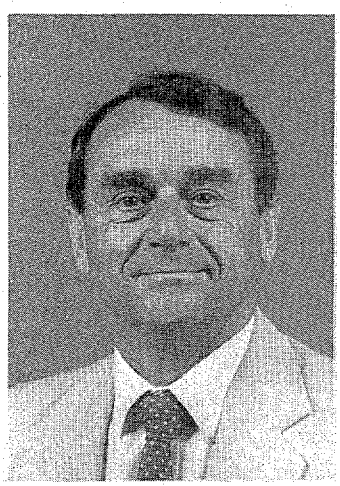
B.A. in Physics, Washington and Jefferson College, 1961. At NAVSWC since 1961. Head, Data Evaluation Branch, Naval Space Surveillance, 1965-1968; Program Manager of MK 86 GFCS Digital Fire Control Programming Group, 1968-1972; Head, Interior Ballistics/Weapon Accuracy Branch, 1972-1975; NSAP Science Advisor to Commander, Naval Surface Forces, U.S. Pacific Fleet, 1976-1977; Head, Combat System Architecture Branch, 1978-1979; Head, Surface Weapons Technology Branch, Advanced Projects Division, 1979-1982; detailed to Office of Naval Technology, directed Strike Warfare Program Element, 1982; Deputy Division Head, Search and Track Division, 1983-1990. Currently, Head, Search and Track Division.

CAPTAIN RICHARD W. MOORE, USN
OFFICER IN CHARGE, WHITE OAK LABORATORY
AND DEPUTY COMMANDER (C1)

Graduate of U.S. Naval Academy; commissioned an Ensign in the U.S. Navy, 1967. M.S. in Physics, Naval Postgraduate School, 1977. Designated Surface Warfare Materiel Professional Officer and a Weapons Systems Acquisition Manager. At-sea assignments include 3 years as Commanding Officer, USS ELROD (FFG-55); Executive Officer, USS LUCE (DDG-38); and Commanding Officer, USS MOSOPELEA (ATF-158) and USS PAPAGO (ATF-160). Shore assignments include Deputy Director of Materiel Professional Policy (CNO/OP-01M); Head, Area Defense Missile Systems Section (CNO/OP-352L); Instructor, Weapons and Systems Engineering, at the U.S. Naval Academy. Reported to NAVSWC in June 1989. Serves in a line capacity to the Commander, with delegated line authority to act for the Commander during his absence, and exercises Command functions at the White Oak site. Principal military officer in the process of technical evaluation of programs Centerwide.

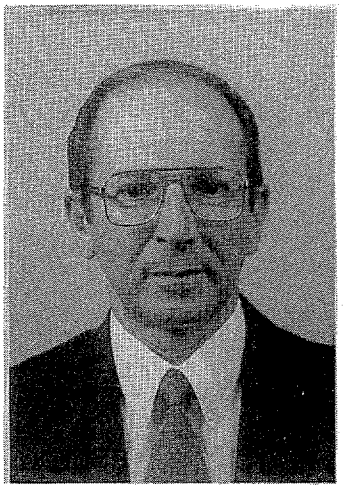
CARL E. MUELLER
DIVISION HEAD
RESEARCH AND TECHNOLOGY DEPARTMENT (R30)

B.S. in Chemical Engineering, Clarkson University, 1961; M.S., 1969, and Ph.D., 1977, in Chemical Engineering, University of Maryland. At NAVSWC since 1961. Extensive RDT&E hands-on experience in electrochemistry, power sources, corrosion technology, materials science, systems analysis, operations research, long-range planning, and project management, 1961-1980; Head, Electrochemistry Branch, 1980-1987; scientific staff assistant to the Assistant Secretary of the Navy (R,E&S), 1985-1987; Navy SBIR Program Manager, Office of the Chief of Naval Research, 1987-1988; Head, Materials Division, 1988-present. Received Navy Meritorious Civilian Service Awards, 1984 and 1988; Congressional Citation, 1988. Member Electrochemical Society, American Institute of Chemical Engineers, and Sigma Xi. Currently managing research and development in metallic and nonmetallic materials, composites, electrochemistry, corrosion technology, biotechnology, nondestructive evaluation, surface science, and superconductivity.



KURT F. MUELLER
DIVISION HEAD
RESEARCH AND TECHNOLOGY DEPARTMENT (R10)

M.S. in Chemistry, 1961, and Ph.D. in Organic Chemistry, 1963, University of Tuebingen, Germany. At Naval Ordnance Station, Indian Head, 1963-1973. At NAVSWC since 1973. Experience in liquid monopropellants, solid propellants, and explosive science. Head, Synthesis and Formulations Branch, 1979-1984; Acting Head, Energetic Materials Division, 1984-1985; 1-year NSTEP appointment to OSD in the Office of Munitions, 1985-1986; Head, Energetic Materials Division, 1986-1990. Currently serving a 1-year assignment as Deputy Head, Weapons Systems Department.

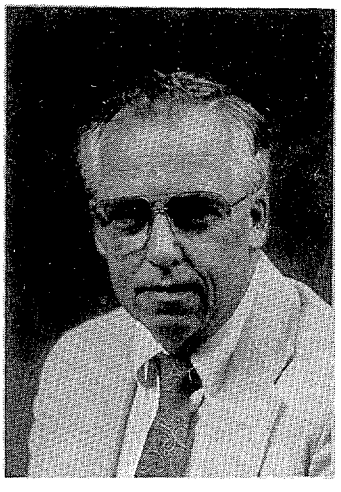


JOSEPH A. NUNZIATO
DIVISION HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E30)

B.S. in Marine Engineering, U.S. Merchant Marine Academy, 1957. Varied experience in the private sector, maritime industry, 1957-1961. Performed RDT&E of safing, arming, and fuzing systems for U.S. Army nuclear and conventional missile and ammunition systems, 1961-1973. At NAVSWC since 1973. Systems test engineer, 1973-1975; Head, Reliability and Quality Assurance Branch, 1975-1982; Head, Product Assurance Division, 1982-present.

HERMAN C. OLIVER, JR.
DEPUTY DEPARTMENT HEAD
PROTECTION SYSTEMS DEPARTMENT (H02)

B.S. in Mathematics and Physics, Lynchburg College, 1957. Research Associates, Ballistics Analysis Laboratory, Johns Hopkins University, 1957-1959. Antenna engineer, Melpar, Inc., 1959-1963. At NAVSWC since 1963. Aircraft vulnerability analyst, 1964-1967; Surface Target Vulnerability Program Manager, 1967-1969; Weapon Guidance Group Program Manager, 1970-1974; Head, Guided Projectile Division, 1974-1975; Head, System Analysis Division, 1975-1983; Head, Survivability Division, 1983-1989. Currently, Deputy Department Head, Protection Systems Department.



COMMANDER ROBERT E. ORCUTT, JR., USN
MILITARY ASSISTANT
ELECTRONICS SYSTEMS DEPARTMENT (F01)

A.B. in Political Science, Holy Cross College, 1973; M.S. in Systems Technology (C^3), Naval Postgraduate School, 1986. Qualified Surface Warfare Officer. Served aboard Pacific Fleet surface combatants in various engineering, operations, and executive positions. Participated in U.S. escort operations in the Persian Gulf, 1987. Material Officer on Commander, Destroyer Squadron NINE Staff. Course instructor, Surface Warfare Officer School, Newport, RI. Assigned to Naval War College Staff as Director, U.S./Japan and SEACON War Game Series; concurrently taught a course on Soviet military strategy. At NAVSWC since August 1990.

THOMAS C. PENDERGRAFT
DEPARTMENT HEAD
ELECTRONICS SYSTEMS DEPARTMENT (F)

B.S. in Electronics Engineering, Christian Brothers College, 1971; graduate work in electronics and systems engineering, Virginia Polytechnic Institute and State University and University of Virginia. Served in U.S. Navy, 1963-1967. At NAVSWC from 1971-1981. With Emerson Electric, 1981-1983. Returned to NAVSWC, 1983. Technical expertise in field of sensor systems, including radar, electronic warfare, infrared, and lasers; developed concepts for multisensor integration; developed new technology requirements to address the Navy low-flyer/low-observables issues; Head, Radar Engineering Branch, 1979-1981; Head, Search and Track Division, 1983-1989. Received Bernard Smith Award, 1989. Member IEEE and Association of Old Crows. Currently, Head, Electronics Systems Department.

RAYMOND M. POLLOCK
DIVISION HEAD
COMBAT SYSTEMS DEPARTMENT (N40)

B.S. in Mathematics, University of Pittsburgh, 1961; graduate work in computer science, University of Virginia. At NAVSWC since 1961. Head, FBM Operational Software Development Branch, mid-to-late 1970s; Head, TOMAHAWK Office, 1980-1985; Head, Cruise Missile Weapon Systems Division, 1985-1990. Received Bernard Smith Award, 1979, and Meritorious Civilian Service Award, 1987. Currently on assignment to NAVSWC Information Command and Control project.

JAMES F. PROCTOR
DEPUTY TECHNICAL DIRECTOR (D1)

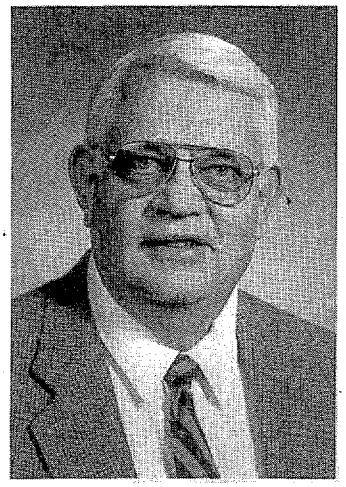
B.S. in Mechanical Engineering, Duke University, 1956; M.S. in Mechanical Engineering, University of Maryland, 1960. At NAVSWC since 1956. Began career as JPD, Explosives Research Department; research mechanical engineer conducting research in response of structures and materials to explosion loadings, 1957-1975; Head, Explosive Dynamics Branch, Research and Technology Department, 1975-1977; detailed as Explosives Program Manager, Naval Sea Systems Command, 1977; resumed duties as Head, Explosive Dynamics Branch, 1977-1980; NSTEP assignment on Laboratory Operations Staff, Director of Navy Laboratories, 1980; Head, Energetic Materials Division, Research and Technology Department, 1980-1984; Head, Systems Analysis Division, 1984; became a member of Senior Executive Service, 1985; Head, Research and Technology Department, 1985-1988. Received Navy Meritorious Civilian Service Award, 1972. Registered Professional Engineer, State of Maryland, since 1966. Authored numerous technical reports and journal publications. Currently, Deputy Technical Director.

WILLIAM E. RYAN
DIVISION HEAD
UNDERWATER SYSTEMS DEPARTMENT (U40)

B.S in Electrical Engineering, Illinois Institute of Technology 1965; M.S. in Electrical Engineering, University of Maryland, 1968; completion, off-campus seminar program, Naval War College, 1989. At NAVSWC since 1965. Developed target detecting devices for ballistic missile fuzes and advanced projectile fuzes, 1965-1975; study leader defining the capability of SM-2(N) against a special threat, 1975-1976; technical support to NAVSEA (PMS-404), 1976-1978; developed planning and assessment methodology for Surface-Launched Weaponry Technology Program, 1978-1981; Head, Surface Warfare Planning and Technology Assessment Branch, 1981-1984; Head, Autonomous Weapons and Fuzes Division, 1984-1989; assistant, NAVSEA (SEA-03) Warhead and Fuzing Technology, 1973-1974; Strike Warfare Weaponry Technology Coordinator, NAVSEA (SEA-03, SEA-62R), in Technology Planning and Assessment area, 1978-1979. Member Institute of Electrical and Electronics Engineers, and U.S. Naval Institute. Currently, Head, Underwater Systems Assessment Division.

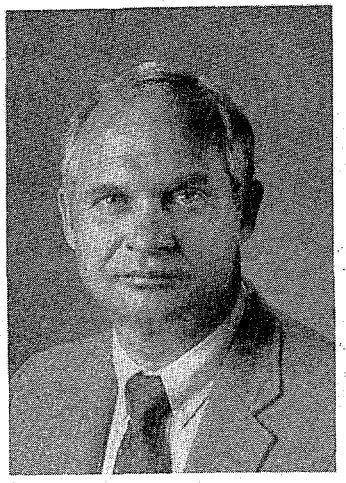
ROBERT T. RYLAND, JR.
DEPARTMENT HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E)

Attended University of Richmond, 1947-1949; S.B. in Electrical Engineering, Massachusetts Institute of Technology, 1951; graduate studies in electrical engineering, University of Pittsburgh; and in management, American University, University of Northern Colorado, and University of Virginia. Transformer Design Engineer, Westinghouse, 1951-1954. At NAVSWC since 1954. Various positions in computer hardware design and computer center management, 1954-1968; senior management positions in several NAVSWC departments and on the Technical Director's Staff, including 1 year as Head, Personnel Department, 1968-1979; rotating assignments as Head, Electronics Systems Department, Strategic Systems Department, and Protection Systems Department, and to Executive Development, 1979-1989. Received John Adolphus Dahlgren Award and NAVSWC Human Awareness Award. Member IEEE and ACM. Currently, Head, Engineering and Information Systems Department.



FELIPE B. SANCHEZ
DIRECTOR AND PRINCIPAL GENERAL ENGINEER
SAFETY AND ENVIRONMENTAL OFFICE (C8)

Undergraduate studies, Georgetown University, 1954-1957; B.S. in Chemical Engineering, University of Puerto Rico, 1961; master's degree in Business and Public Administration, University of Virginia, 1981; graduate work at Virginia Polytechnic Institute and State University; graduate, Federal Executive Institute, 1982. Production Engineer, Western Sugar Refiner, Mayaguez, Puerto Rico, 1961. Chemical Engineer, Colgate-Palmolive, San Juan, Puerto Rico, 1961-1962. U.S. Army, chemical engineer (E04), Edgewood Arsenal, 1962-1964. Chemical engineer (RDT&E and Safety), Edgewood Arsenal, 1964-1969. At NAVSWC since 1969. Head, Vulnerability Branch, 1969-1972; Head, Environmental Engineering Group, Applied Sciences and Materials Division, 1972-1975; Head, Engineering Branch, 1975-1979; Program Manager, Hazard Materials, 1979-1980; Acting Head, Surface ASW Division, 1981-1982; Head, Environmental Assessment and Hazardous Material Office, 1982-1984; Head, System Safety Division, 1984-1989. Member American Chemical Engineering Society; System Safety Society; World Safety Organization; Professional Chemist, Puerto Rico; Professional Engineer, California; Professional Engineer, Massachusetts. Currently, Director, Safety and Environmental Office.

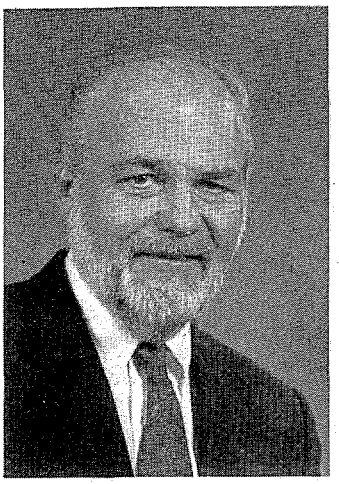


RODNEY L. SCHMIDT
DEPARTMENT HEAD
STRATEGIC SYSTEMS DEPARTMENT (K)

B.S. in Electrical Engineering, University of Buffalo, 1960; M.S. in Physics, American University, 1968; M.A. in Public Administration, University of Northern Colorado, 1973. Graduate, Federal Executive Institute, 1978, and Naval War College, 1985. At NAVSWC since 1960. Conducted RDT&E in electromagnetic effects on electronics and weapons systems, 1960-1967; Head, Physics and Electronics Branch, 1967-1968; Head, Guidance and Control Division, 1968-1970; Head, Electromagnetic Vulnerability Division, 1970-1972; scientific assistant to Technical Director, 1972-1974; Head, Electronic Warfare Division, 1974-1975; Head, Weapons Control Division, 1975-1979 and 1983-1986; Head, Combat Systems Design and Engineering Division, 1979-1981; Deputy Head, Combat Systems Department, 1981-1983; Head, Weapons Systems Department, 1986-1988. Currently, Head, Strategic Systems Department.

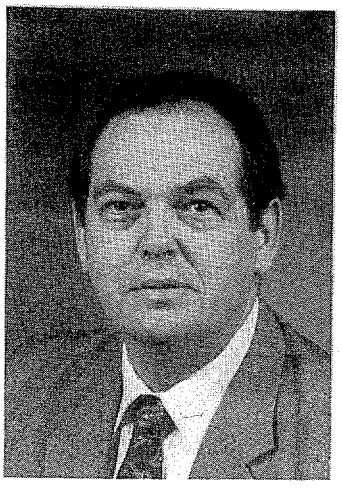
COMMANDER STEPHEN T. SHEDD, USN
MILITARY ADVISOR
SURFACE WARFARE ANALYSIS OFFICE (D25)

B.E. in Industrial Engineering, Georgia Institute of Technology, 1968; M.S. in Physics, Naval Postgraduate School, 1981. A Surface Warfare Officer with sea tours on USS ALBANY(CG-10); USS WAINWRIGHT (CG-28); USS TRIPPE (FF-1075); and USS CHARLES F. ADAMS (DDG-2). Previous ashore tours include Armed Forces Staff College (student); Headquarters, Naval Material Command, as Navy mission critical computer resources policy officer; and NAVSEASYSCOM as Surface Ship Harpoon Program Manager. At NAVSWC since 1987. Currently engaged in warfare analysis studies for OPNAV, SYSCOMS, and the Center directed toward identifying future Navy warfighting needs and ship types and capabilities required to satisfy those needs.



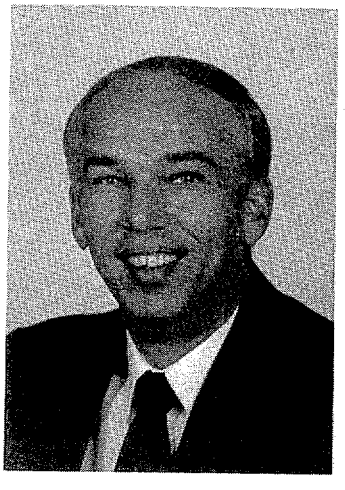
JOHN D. SHERMAN
ACTING DIVISION HEAD
UNDERWATER SYSTEMS DEPARTMENT (U20)

B.S., 1961, and M.S., 1963, in Electronics Engineering, Catholic University of America. At NAVSWC since 1963. Exploratory, advanced, and engineering development in the fields of electronic design and underwater acoustic signal processing for sonobuoys and torpedo guidance; design of magnetic sensors and multi-influence signal processing and algorithm development for mine target detecting devices; design of fuzing for torpedoes and other underwater ordnance. Head, Influence Mechanisms Branch, 1982-1987; Head, Acoustic Signal Processing Branch, 1987-1990; development assignment as technical advisor to the Mine Warfare Branch, Office of Assistant Chief of Naval Operations for Surface Warfare (OP-374), 1989-1990. Received NAVSWC Human Awareness Award, 1986. Holds several patents in the area of sensors and electronic design; published over 20 technical reports. Member IEEE and ASEE. Course instructor in electronics and signal processing, Department of Electrical Engineering, Catholic University of America. Currently, Acting Head, Sensors and Electronics Division.



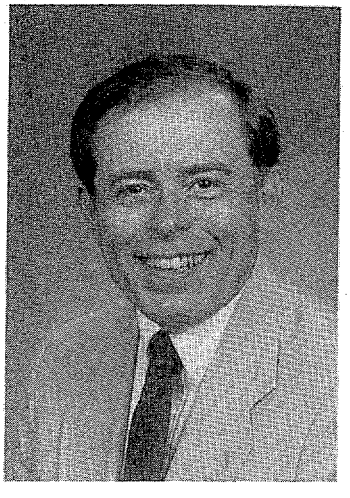
JAMES L. SLOOP
DIVISION HEAD
STRATEGIC SYSTEMS DEPARTMENT (K10)

B.S. in Physics, Washburn University, 1961; graduate studies in electronic engineering, Virginia Polytechnic Institute and State University. At NAVSWC since 1962. Head, Ballistic Measurements Branch, 1968-1970; Head, Optical Instrumentation Branch, 1971-1973; Head, 8-Inch Guided Projectile Program Office, 1975-1977; Deputy Head, Guided Projectile Division, 1977-1978; Head, Missile Fire Control Systems Branch, 1978-1981; Head, Missile Systems Division, 1981-1986; Head, Gun Weapon Systems Office, 1986-1987; Deputy Head, Weapon Systems Department, 1987-1990. Currently, Head, Space and Surface Systems Division.



JON L. SWEIGART
DIVISION HEAD
ELECTRONICS SYSTEMS DEPARTMENT (F30)

B.S. in Mechanical Engineering, Pennsylvania State University, 1968; graduate, Federal Executive Institute. At NAVSWC since 1968. Development experience in gun systems, missile and launching systems; Program Manager, MK 75 Gun Mount Program, 1972-1976; Program Manager and NAVSEA Technical Director of Vertical Launching Systems, 1976-1983; Head, Systems Engineering Branch, Missile Systems Division, 1982-1985; Head, Weapons Evaluation Division, 1986-1989. Holds a patent for a spring-activated, liquid propellant gun. Currently, Head, Command Support Systems Division, involved in electronic warfare and naval intelligence systems.



MARSHALL J. TINO
DEPARTMENT HEAD
PROTECTION SYSTEMS DEPARTMENT (H)

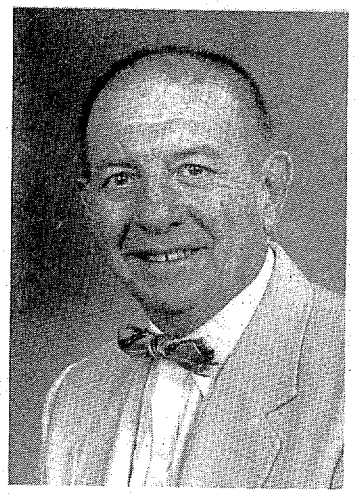
B.S. in Mathematics and Physics, Geneva College, 1958; M.S. in Management, University of Southern California, 1982. At NAVSWC since 1958. Weapon System Safety Engineer (NOL), 1958-1965; system analyst in ASWSPO, 1965-1972; Branch and Division Head (NOL/NSWC), 1972-1979; staff assistant in ASN(RES), 1979-1982; Head, Underwater Systems Department, 1982-1985; Associate Technical Director, 1985-1988. Received Civilian Meritorious Service Award, 1982. Member ADPA, Navy League, ASNE, MORS, and Association of Minemen. Currently, Head, Protection Systems Department.

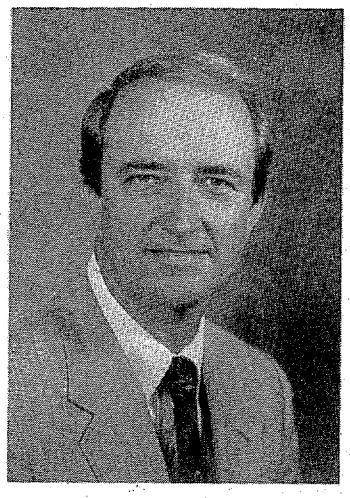
CAPTAIN ROBERT A. TOLHURST, USN
DIRECTOR, OP-07 NAVSWC PROGRAM OFFICE
COMMAND STAFF (C07)

B.S. in Engineering, U.S. Naval Academy, 1969; M.A. in Management, Webster College, 1974. Designated a naval aviator in 1970. Flew with VA-75 aboard USS SARATOGA (CV-60), completing 188 combat missions in Vietnam, 1972-1973. Squadron assignments included: Flight Instructor, VT-22, 1974-1976; Flight Instructor, Aircraft Division Officer, Assistant Maintenance Officer, Pilot Training Officer, and Maintenance Officer, VA-42, 1978-1981; Operations Officer and Safety Officer, VA-65, 1981-1984; Executive Officer, VA-42, 1985; and Executive Officer, 1985-1986, and Commanding Officer, VA-85, 1986-1988. Ship and staff assignments included: Flight Deck Officer, USS JOHN F. KENNEDY (CV-67), 1976-1978; Tactics Instructor and Safety Officer to Commander Medium Attack Wing ONE, 1984-1985; and Air Operations Officer, Commander Carrier Group FOUR, 1988-1990. Reported to NAVSWC in August 1990 as Director, NAVSWC Program Office, providing support to OP-07.

THOMAS W. TRUSLOW
DEPUTY DEPARTMENT HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E02)

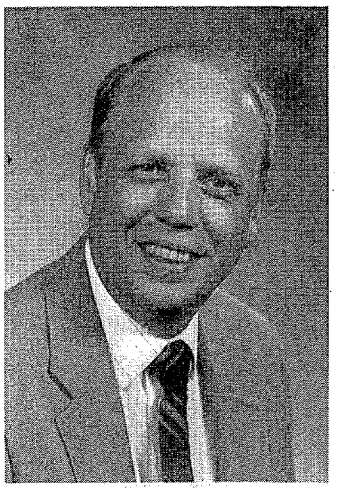
B.S. in Mathematics and Physics, University of Pittsburgh, 1948; graduate studies in engineering and management, American University and University of California at Los Angeles. Allied Chemical Corporation, 1946-1952. Ordnance engineering, U.S. Navy, 1952-1955. Directed terminal ballistics studies, ordnance RDT&E, and target vulnerability assessment, 1952-1966. At NAVSWC since 1966. Head, Power Applications Division, Engineering Department, directing research and development of weapons systems, delivery techniques, cartridges, and cartridge actuated devices, 1967-1974; Head, Product Assurance Division, 1974-1981. Currently, Deputy Head, Engineering and Information Systems Department.





JOHNNY W. WALTERS
DIVISION HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E10)

B.S. in Industrial Engineering, Mississippi State University, 1971. At NAVSWC since 1971. Staff industrial engineer, 1971-1975; Head, Special Projects Section, Mechanical Fabrication Division, 1975-1979; facilities engineer, Advanced Facilities Planning Office, Combat Systems Department Staff, 1979-1980; Board of Directors' study of Center fabrication requirements, 1981; Head, Engineering Prototype Branch, 1982-1989. Member IIE. Currently, Head, Design and Manufacturing Division.



WILLIAM W. WASSMANN
DIVISION HEAD
UNDERWATER SYSTEMS DEPARTMENT (U10)

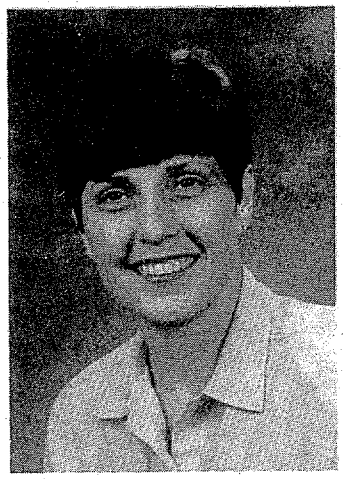
B.S., 1967, and M.S., 1969, in Mechanical Engineering, Catholic University of America; graduate work toward Ph.D. in Mechanical Engineering, University of Maryland. Dissertation research area: experimental investigation of turbulent shear flows. Established environmental design criteria for naval weapons systems; specialist in shock and vibration test planning and analysis; programs supported include MK 48 Torpedo, High-Energy Laser, CAPTOR, AEGIS, TOMAHAWK, and VLS; served a 6-month detail to CNO conducting a Navy-wide review of EEO policies and practices; Head, Environments Branch, 1979-1989; provided leadership in the establishment of a new Information Analysis Center within DOD for the analysis of shock and vibration information. Currently, Head, Underwater Weapons Division, which is responsible for the mechanical design of underwater mines, torpedo warheads, and explosive devices.

EDWARD R. WHALEN
DIVISION HEAD
ELECTRONICS SYSTEMS DEPARTMENT (F20)

B.S. in Mathematics, St. John's University, 1963; M.P.A. in Operations Research, American University, 1968; M.S. in Computer Science, Johns Hopkins University, 1968. At NAVSWC since 1965. Program Manager for Navy's Empass Aircraft, 1972-1975; Program Manager for development of Electronic Warfare Ranges and Simulators, 1975-1977; this program built and instrumented the EW range at AFWTF, Roosevelt Roads, PR; initiated NAVSWC's involvement in the AN/SLQ-32 program; initially developed NAVSWC's involvement in airborne ESM and cryptologic programs; NSAP Science Advisor to Commander in Chief, U.S. Naval Forces Europe, 1986-1988. Received the Navy Meritorious Civilian Service Award, 1988. Senior member IEEE. Currently, Head, Tactical Electronic Warfare Systems Division, which includes such programs as AN/SLQ-32 fleet support and developmental upgrades, SLEWS, DDI, NULKA, and DAPS, with further work in the areas of hardkill/softkill and AIEW.

LEATON M. WILLIAMS III
ACTING DEPARTMENT HEAD
WARFARE SYSTEMS DEPARTMENT (J)

B.A. in Mathematics and Chemistry, St. Andrews Presbyterian College, 1963; graduate studies, Catholic University of America and American University, 1963-1966; Federal Executive Institute Program in Executive Education, 1976. At NAVSWC since 1963. Project engineer, Weapons Development and Evaluation Laboratory, 1963-1967; project engineer and Branch Head, Exterior Ballistics Branch, Computation and Analysis Laboratory, 1967-1969; Head, Interior Ballistics and Accuracy Branch, 1969-1972; Head, Ballistics Division, 1972-1973; Head, Munitions Division, 1973-1975; Head, Mechanics Division, 1975-1977; staff specialist, OUSRD and E/OSD, 1977-1978; Head, Electronics Warfare Division, 1978-1979; Deputy Department Head, Weapon Systems Department, 1979-1980; Head, Missile Systems Division, 1980; Head, Weapons Systems Department, 1980-1982; Deputy Technical Director, 1982-1985; Head, Electronics Systems Department, 1985-1990. Received John Adolphus Dahlgren Award, 1988. Member Senior Executive Service since 1980; received the Presidential Rank of Meritorious Executive, 1990, and to Rank of Distinguished Executive, 1990. Currently, Acting Head, Warfare Systems Department.

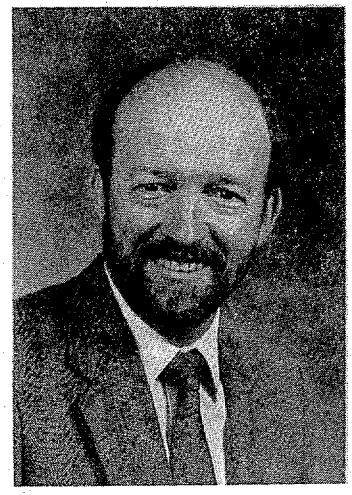


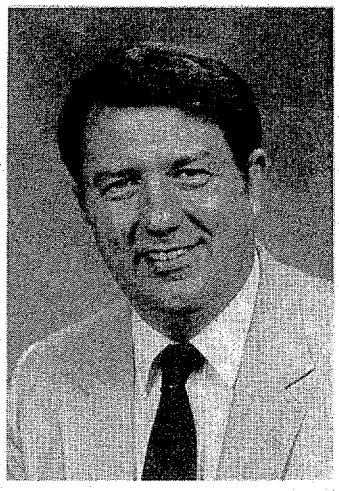
CAROL B. WILSON
DIVISION HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E50)

A.B. in Mathematics, University of Missouri, 1967; M.S. in Computer Science, University of Maryland, 1972. At NAVSWC 1967-1977. Applications and operating systems analysis and programming, data base design and implementation, user services, computer performance management. At NIST 1977-1979. ADP installation performance, standard performance measures, ADP chargeback, system test and evaluation. President, Fiscal Associates, 1979-1985; data base and management systems design, implementation, and consultation. MIS Director, Essex Corporation, 1985-1988; integrated financial and management information systems, data base conversion, RMA of ship classes. Returned to NAVSWC in 1988. Head, White Oak Information and Computer Systems Branch, 1988. Currently, Head, Systems Division.

FRED W. WILSON
DIRECTOR, NAVY SCIENCE ASSISTANCE PROGRAM (D23)

B.S. in Mechanical Engineering, Virginia Polytechnic Institute and State University, 1967; M.S. in Mechanical Engineering, University of Tennessee, 1971. At DTRC from 1967-1986. Performed research in surface ship hydrodynamics, 1967-1975; Head, Surface Effect Ships Technical Evaluation Group, 1975-1980; performed research in advanced vehicle design, 1980-1984; detailed to NSAP Office, 1984-1986. At NAVSWC since 1986. Assistant Director, Navy Science Assistance Program, 1984-1988. Holds five patents in advanced surface ship technology. Currently, Director, Navy Science Assistance Program.





RYLAND D. WISEMAN, JR.
DIVISION HEAD
ENGINEERING AND INFORMATION SYSTEMS DEPARTMENT (E20)

B.S. in Mechanical Engineering, University of Maryland, 1961. At NAVSWC since 1961. Design of cartridge actuated devices, 1961-1972; Guided Projectile Program Office, 1973; Head, Programs Branch, 1973-1980; Deputy Head, Product Assurance Division, 1980-1985. Coholder of two patents. Currently, Head, Technical Information Division.

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